

# SAFE COMMUNICATIONS TECHNOLOGY



## SAFE ACTIVITY FOUNDATIONS IN EDUCATION DOCUMENT

Revision May 2013, Revision September 2020

TGJ20 Communications Technology: Open  
TGJ3M Communications Technology: Open  
TGJ4M Communications Technology: TGJ3 Prerequisite

TGI3M Communications Technology: Interactive New Media and Animation  
TGP3M Communications Technology: Photography and Digital Imaging  
TGG3M Communications Technology: Print and Graphic Communications  
TGR3M Communications Technology: Radio, Audio and Sound Production  
TGV3M Communications Technology: TV, Video and Movie Production  
TGI4M Communications Technology: Interactive New Media and Animation  
TGP4M Communications Technology: Photography and Digital Imaging  
TGG4M Communications Technology: Print and Graphic Communications  
TGR4M Communications Technology: Radio, Audio and Sound Production  
TGV4M Communications Technology: TV, Video and Movie Production



This resource was produced by the Ontario Council for Technological Education (OCTE) in support by the Ministry of Education. It may be used in its entirety, in part, or adapted.

## Education Document

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## Disclaimer

This material was designed to assist teachers implement the Ontario Curriculum – Technological Education (revised Grade 10 -12) but is fully adaptable to the Ontario Curriculum Grade 1 – 8 Science and Technology curriculum. This material was created by members of the Ontario Council for Technology Education (OCTE) subject association and is intended as a working guide for classroom, lab or shop activities. Permission is given to reproduce these materials for any purpose except profit. Teachers are encouraged to amend, revise, edit and adapt this material for educational purposes. Please acknowledge the source in all uses. Any references in this document to particular commercial resources, materials or equipment reflect only the opinions of the writers of this material, and do not reflect any official endorsement by the Ontario Council for Technology Education, the Ontario Ministry of Education, or any other agency or government body.

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## SECTION 1: GENERAL

### Safe Activity Foundation in Education (SAFEdoc): Communications Technology

This **SAFEdoc** was designed to provide safety data sheets, posters, safety passports, and safety resources for all technology educators. While originally developed as a resource for the Course Profiles, it is available for any grade level or any technology education environment.

In 2013 another resource called the SafetyNET was created by OCTE with many subject-specific exemplars of exciting student projects that incorporate varying levels of safety risk. Please review exemplar TGJ SafetyNET resource documents created 'by teachers for teachers' with experienced tips and customization options for your course projects.

The **SAFEdoc** has been created for eleven separate disciplines per Ontario Ministry Courses:

Communications, (COM)	Hospitality and Tourism (HOST)
Computer Engineering Technology (CET)	Manufacturing (MANU)
Construction, Custom Woodworking (CON)	Technological Design (DESIGN)
Green Industries (GREEN)	Transportation (TRANS)
Hairstyling and Aesthetics (H&A)	Exploring Technologies (EXPL)
Health Care (HC)	

Please note that due to the cross-curricular nature of Technological Education, there may be a need to refer to other **SAFEdocs** for cross-discipline data sheets. For example, a Computer Engineering teacher may need to utilize construction and manufacturing equipment or communications technology production equipment, and therefore may need to refer to the CON or COM **SAFEdoc**. Teachers are encouraged to download ALL **SAFEdocs** for reference.

Teachers are encouraged to add to this **SAFEdoc** with data sheets, tests or other materials on an ongoing basis. Additions or revisions to this document will be posted on the **Ontario Council for Technology Education (OCTE)** website (<http://www.octe.on.ca>) periodically.

This document is a practical safety resource that complements and elaborates on other recommended resources for technology teachers. See the appendix for linking information such as the **Young Worker's Awareness Program**, and industry associations dedicated to safe working practices.

It is imperative that all students are made aware of the issues of health and safety particular to

your class, and that you have assessed and evaluated their understanding before they are allowed to work in a shop environment or on specific procedures or tools. The use of Safety Passports, Safety Agreements, and Safety Tests (provided in this document) is highly recommended.

NOTE: While it is important to give students initial safety training and testing at the beginning of the semester, it is also important to practice **JIT Safety Training (Just In Time)** and to reinforce specific safety procedures and rules each day before initiating new procedures or using equipment. For example, before students use a band saw, review the setup and ask key questions of students before allowing its use.

## Usage of the SAFEdocs

Teachers are encouraged to use and modify this document as they see fit. Individual pages may be directly printed, or custom formatting may be applied for printing any part of the document. **General Guidelines** may be used in Board or school policy documents. **Safety Guidelines** may be used as student handouts, as a teacher reference for tests, or printed and mounted as posters around equipment.

The **SAFEdoc** also contains sample **Safety Passports**. These can be used as verification that students have been trained and understand the safety aspects of each equipment or procedure they need to use to accomplish their tasks. There are several formats that may be used. Teachers are encouraged to keep consistent records at all times.

See Appendix A for related safety resources, such as Live Safe, Work Smart; the Young Workers Awareness Program, the Ministry of Labour and other organizations dedicated to safe practices.

It is important that teachers are knowledgeable about their own Board and school policies regarding safety, and that they are familiar with local municipal regulations.

## Responsibilities for Safety

[from the Ontario Ministry of Education, The Ontario Curriculum (Revised)2009, Technological Education, Grades 9 and 10 (page 28); Grade 11 and 12(page 33)]

Health and safety is of paramount importance in technological education. In every course, students must be made aware that health and safety is everyone's responsibility at home, at school, and in the workplace. Before using any piece of equipment or any tool, students must be able to demonstrate knowledge of how the equipment or tool works and of the procedures they must follow to ensure its safe use. Personal protective gear must be worn as required. Classroom practice and all aspects of the learning environment must comply with relevant municipal, provincial, or federal health and safety legislation, including the following:

- the [Ontario Workplace Safety and Insurance Act](#)
- the [Workplace Hazardous Materials Information System \(WHMIS\)](#)
- the [Food and Drugs Act](#)



- the [Ontario Health Protection and Promotion Act](#)
- the [Ontario Building Code](#)
- the [Occupational Health and Safety Act](#)
- local by-laws

Teachers should make use of all available and relevant resources to make students sufficiently aware of the importance of health and safety. These resources include:

- Ontario Ministry of Labour, Training and Skills Development (MOLTSD) – website (<http://www.labour.gov.on.ca/english/>) and related resources
- Young Workers Awareness – website (<https://www.labour.gov.on.ca/english/atwork/youngworkers.php>) and related resources
- Workplace Safety and Insurance Board (WSIB) – website (<http://www.wsib.ca/>) and related resources
- Workplace Safety and Prevention Services (WSPS) – website (<https://www.wsps.ca/Home.aspx>) and related resources
- Canadian Centre for Occupational Health and Safety (CCOHS) – website (<http://www.ccohs.ca/>) and related resources
- Ontario Ministry of Health – website (<https://www.ontario.ca/page/ministry-health>) and related resources
- Appropriate Safe Workplace Associations (SWAs) and clinics, such as:
  - the Infrastructure Health & Safety Association of Ontario (IHSAO) – website (<https://www.ihsa.ca/Homepage.aspx>)
  - the Workers Health & Safety Centre (WHSC) – website (<http://www.whsc.on.ca/>)
  - the Occupational Health Clinics for Ontario Workers (OHCOW) – website (<http://www.ohcow.on.ca/>)

Teachers should also be aware of the Occupational Health and Safety Act, Regulations 857, Amended to O. Reg. 352/91. The Occupational Health and Safety Act can be found at: [http://www.e-laws.gov.on.ca/html/regs/english/elaws\\_regs\\_900857\\_e.htm](http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900857_e.htm)

## Delegating the Responsibilities for Safety

As well, there are key areas of responsibility that must be clearly delegated for all technological subject areas and they must be addressed for their individual board, school and facility.

These may include administration, department heads, technology teachers, students, board facilities, custodian/maintenance and other local partners or board-defined roles.

\*An original source of this delegation example has been adapted from the Toronto District School Board – Experiential Learning Department – Technological Education ‘Front Matter’ for the purposes of the SAFEdoc revision 2013. Please note that this section is not original to the SAFEdoc writers, but is a result of collaboration between the TDSB and OCTE. This in no way refers any responsibility to the TDSB for this information, and has been provided as a guideline reference only.

### Administration

The responsibility rests with the Principal or his or her designate to ensure that each Technological Education Teacher has received the information and instruction on the safe use of equipment in the classroom.

In order to achieve safety goals, the School Board, Superintendents and Principals should:

- establish and maintain a written Board safety policy and program
- emphasize and enforce the safety policy and procedures
- ensure that each Teacher has been satisfactorily trained on the use of equipment within the classroom
- ensure in-service education sessions are held for Teachers concerning the safety policy and procedures therein, such as machine guarding, lock-out, fire prevention, first aid, personal protective equipment
- be aware of current legal issues about liability for classroom accidents; ensure that such is part of in-service sessions for staff
- assist and encourage the teacher to correct and avoid situations that could result in liability to the Teacher and the school
- provide for proper safety equipment in all technology areas
- hold staff accountable for safety practices in their respective areas
- analyze accident records in order to determine the most frequent causes of accidents and the more severe types of accidents
- take corrective measures to change accident-causing conditions

- ensure that staff health and safety training and information is current
- make safety literature, posters, and safety promotional material available to all persons associated with the technology program
- set up a program for the safety orientation for new staff
- ensure that all Occasional Teachers working in the Technology areas are informed about and understand the standard accident and emergency procedures
- not permit the overcrowding of classes, taking into account the physical size of a room, the arrangement of the equipment, furniture and facilities in the room, and the kind of activities that are being carried out in the room
- ensure that the use of space has not changed unless changes have been designed by a qualified architect or engineer
- at the beginning of the year/semester, make the Technological Education Teacher aware of any student medical condition that could result in a safety problem
- ensure that individuals are designated to be responsible for safety in the Technology Department
- limit after-hours access to the Technological Education facilities and equipment to qualified personnel

## Department Heads / Curriculum Chairs/Program Leaders

The Department Head is the intermediary between the individual Teacher and Administration. Each Department Head is accountable to his or her Principal to ensure input into the administrative process and enforcement of both the *Occupational Health and Safety Act* and Board policies.

The Department Head should:

- ensure that each Technology area has a floor plan posted in a strategic place to show the locations of items such as:
  - ✓ fire extinguishers
  - ✓ school Defibrillator
  - ✓ posted emergency phone numbers
  - ✓ fire blankets
  - ✓ emergency power stop buttons
  - ✓ emergency kit
  - ✓ eyewash station(s)
  - ✓ emergency exits
  - ✓ special shut-off valves (gas, etc.)
  - ✓ nearest fire pull station

- ensure that a first-aid kit is available in each Technology area
- ensure there is Personal Protective Equipment (PPE) available for Technology staff
- ensure implementation and understanding of the safety policies and procedures. This includes developing specific departmental safety procedures or rules for specific areas.
- ensure a designated Teacher is responsible for specific areas of safety in his or her specific areas
- inform the Principal when the physical condition or other factors in the classroom may detrimentally affect safe instruction
- when a program is disbanded, ensure equipment is locked-out and room is not accessible (rekeyed)
- inform the Principal, in writing, of any known or potential safety hazard
- encourage the use of safety posters, literature, and audiovisual aids
- advise the Technological Education staff to ensure that all student projects are able to be completed with safety guards in place. Keep safety guard and anti-kickback devices in position, if possible. Use approved alternate safety devices where appropriate.
- advise Teachers to ensure that safety guards are placed back immediately when process is finished
- where applicable, ensure that there is an appropriate spill kit and spill procedure present
- develop, implement, and post a standard accident emergency procedure in each Technology area
- ensure that current inventories of Material Safety Data Sheets (MSDSs) are maintained
- ensure that no unapproved or unsafe equipment, materials, or procedures are used in the area. Equipment should be purchased through Board-approved vendors.
- advise Technology staff that any equipment deemed not to be safe must be taken out of service immediately, tagged, locked out, and reported to the Principal
- advise the Technological Education staff to ensure that no practical shop work requiring the use of tools shall take place during their absence or when an unqualified Teacher in Technological Education is supervising the class
- advise any certified Occasional Technological Education Teacher working in a specific subject area not to engage in practical work until familiar with the shop environment
- encourage the Technology staff to receive first-aid training

- ensure that all accidents and incidents are recorded and reported on the appropriate forms
- conduct, along with the Health and Safety representative where appropriate, a follow-up analysis of all accidents and incidents
- notify the Chief Custodian, Facility Services of any special needs or deficiencies in the area
- review, at least annually, all procedures and rules

## Technology Teacher

In order to provide a safe environment for students involved in any Technological Education course, the following procedures must be adhered to:

Teachers must be aware of their Board Safety Documents that outline safety procedures for machinery, tools, equipment, and procedures by completing advised Board Training.

Use of Board Safety Documents is required as the minimum basis for safety instruction. Enhancements and additions to these documents are permitted to meet program needs.

Students and employees must receive instructions on the safe and proper operating procedures for specific machinery and equipment by a qualified Technological Education Teacher before permission is given to use tools, machinery, and equipment. The following excerpt from the Ontario Curriculum document for Technological Education explains this point further:

Teachers are responsible for ensuring the safety of students during technology lab, shop, and classroom activities. Health and safety issues must also be addressed when learning involves cooperative education and other workplace experiences. Teachers need to encourage and motivate students to assume responsibility for their own safety and the safety of others, and they must help students develop the knowledge and skills needed for safe participation in all technology-related activities. For these reasons, teachers must model safe practices at all times and communicate safety expectations to students in accordance with school board policies and procedures, Ministry of Education policies, and Ministry of Labour regulations.

To carry out their responsibilities with regard to safety, it is important not only that teachers have concern for their own safety and that of their students, but also that they have:

- the knowledge necessary to use the materials, tools, and procedures involved in science and technology safely
- the skills needed to perform tasks efficiently and safely

**Note:** Teachers supervising students using power equipment such as drills, sanders, and saws

need to have **specialized** training in handling such tools. This specific training requirement applies to listed equipment in all areas of technology education specialization.

Teachers of Technological Education courses must carefully maintain records of student attendance and records of safety instruction given.

Teachers are expected to be able to provide documentation:

1. that the student was present on the date each safety lesson was taught (dated lesson plans, attendance records clear and unambiguous)
2. of the safety lesson that was delivered (e.g., PowerPoint, note taking, signed safety pledge, pre-printed sheets, successful passing on an announced written test that is dated and stored by the teacher, correction of errors completed)
3. that indicates student understanding of the safety lesson (e.g., completed evaluation tool, student notes)
4. of how students are reminded of safe practice throughout the course (e.g., notation in teacher daybook)
5. that the work and learning environments are kept safe, tidy, and in good condition (e.g., photos, focus on machines with guards in place, maintenance records, safety inspections, cleanup procedures, student safety stewards, modeling of best practices), and that the Head Caretaker is informed of any maintenance issues
6. that students' different learning styles and needs are taken into account, both during the delivery of the safety lessons and during any follow-up evaluation (e.g., use of visuals, opportunities to demonstrate understanding orally)
7. that safety procedures are explained using various strategies such as verbal explanation, demonstrations through modeling, and accompanied by both written and pictorial explanations that are posted throughout the work and learning environments
8. those accommodations and, if necessary, modifications are made to the curriculum and included in the Individual Education Plan (IEP) in the event that the student cannot manage all curriculum expectations safely
9. that each student has signed the annual acknowledgment form, stating that he/she has been informed of the safety procedures

## LOCKING OUT AND TAGGING OUT EQUIPMENT

The process for Teachers for locking out and tagging out equipment is as follows:

- If the equipment can be locked out by way of a power switch located on the actual piece of equipment, by use of a padlock, then the Teacher can lock it out.
- If the power cannot be locked out at the equipment, then the Head Caretaker must be notified and the power should be locked out at the panel box.
- Lockout is always required when repairs/adjustments are being performed on any piece of equipment.
- Once the equipment is locked out, it must be “Tagged Out” by attaching an appropriated tag in a conspicuous location, showing the worker’s name and reason for lockout, along with the date and time.
- Notify Administration and the Head Caretaker that lockout and tag-out have occurred.

## Students

Students demonstrate that they have the knowledge, skills, and habits of mind required for safe participation in Science and Technology activities when they:

- maintain a well-organized and uncluttered workspace
- follow established safety procedures
- identify possible safety concerns and bring this to the attention of the teacher
- suggest and implement appropriate safety procedures
- carefully follow the instructions and example of the Teacher
- consistently show care and concern for their own safety and that of others

## Board Facilities

- Inspect the Technology areas on at least an annual basis with respect to maintenance items such as gas leaks, electrical outlets, safety indicators or signs, ventilation, and any other potential hazards.
- Report the results of the inspection to the Principal.
- If work is planned in a Technology area, ensure the Teachers are informed and check for special hazards which may be present.
- Before working in a shop or on any of the shop services, inform the Teacher what will be done, and when the work will be starting and finishing. The classroom Teacher is

responsible for ensuring that work area within the room is free from physical and chemical hazards.

- In situations where the hazard cannot be totally removed, specific work procedures must be developed in conjunction with the Teacher and the Health and Safety Officer.

## Custodian / Maintenance

- Daily removal of garbage, scraps, and waste must be organized and coordinated with the Caretaking staff. Note the policies and responsibility related cleaning varies from school board to school board as it relates to collective bargaining, therefore the teacher/department head is encouraged to consult with the head custodian and the school board health and safety officer to determine who is responsible. Education areas that utilize chemicals such as photography supplies, chemical etchers, inks or paints should be familiarized with the caretakers and maintenance department for proper cleanup and disposal procedures.
- Be aware of the hazards in the Technological Education areas.
- Know the hazard warning signs and symbols and proper safety precautions.
- Do not handle unfamiliar materials. Do not handle or move chemicals in the shop.
- In the event of an emergency or concern, know the individuals who should be contacted and how to reach them.
- Know the proper handling and disposal of materials before disposing.
- If the contents of any containers are spilled, the school must adhere to the Spill Procedures. DO NOT TOUCH OR ATTEMPT TO CLEAN UP. Contact the Principal or your supervisor, who will then contact the appropriate person/department.
- Ensure that the Technology shops are secure during non-class hours after school, and at night. This is especially important if the school building is used after school by the community user groups.



## Safety Perspective Overview

### ***Health and Safety Resources and Curriculum***

These resources identify safety rules associated with hazards and processes. They are applicable to a wide range of occupations and situations.

Based on the Ontario curriculum this resource contains safety lessons for technology subjects

### ***Classroom Safety Resources***

These resources identify safety policies and procedures that ensure the safety of people in schools.

e.g., WHMIS Training Sessions, Board Safety Policies, **SAFEdocs**- These resources provide a framework for developing safety procedures in school classrooms  
It is highly recommended that all teachers complete an **OCTE SafetyNET** template for their individual experience / program / classroom / school / board. This is an excellent starting point for self-reflection and preparation for MOL/MOE inspection.

### ***Equipment and Hazard-Specific Safety Rules***

These resources are Just-in-Time (JIT) safety rules. They are applicable to specific equipment in the facility and may apply to specific hazards associated with a program emphasis.

These rules are developed at the classroom/school level to implement safe work practices. They may be adapted from a variety of sources including equipment manufacturer's manuals. A summary is often posted near equipment.

### ***Safety Management***

The teacher develops these resources. The daily classroom safety routines and policies are based on the above safety resources and applied to each individual facility/classroom. Protocols developed to teach safe behaviour directly should include managing safe work practices and behaviour through demonstration and reinforcement of safe working procedures, establishment of clear safety rules, safety passports, assignments, quizzes, and research.

Again, it is highly recommended that teachers complete a SafetyNET template to review their unique projects and procedures and consider risks as advised by OSBIE, and other professional health and safety partners

## Safety Topics for the Classroom

The following are suggested topics for teaching in the classroom. See **Appendix A** for available resources pertinent to general safety and particular safety rules and procedures for your subject area. See **Appendix B** for specific resources or links that are associated with Communications Technology. See also your Board, school and relevant municipal policies for local safety rules and procedures.

<b>Emergency Procedures</b>	procedures for handling fire, security threats, and other emergencies
<b>First Aid</b>	procedures for handling breathing difficulties, bleeding, burns, allergic reactions, epileptic seizures, etc.
<b>Hand Washing</b>	<b>Health Canada procedures for hand washing require hand washing to last twenty (20) seconds.</b>
<b>Personal Protective Equipment</b>	use of eye, hearing, foot, body, respiratory protection
<b>Ergonomics</b>	safe posture when using equipment, avoiding repetitive stress injuries
<b>Material Handling</b>	procedures for safely handling heavy loads, chemicals, potentially hazardous materials
<b>Housekeeping and Storage</b>	procedures and rules regarding maintaining safe facilities and proper storage of materials and equipment
<b>Fire Protection</b>	location and types of fire protection equipment, procedures to follow in the event of a fire or fire alarm
<b>WHMIS 2015</b>	Workplace Hazardous Materials Identification System 2015 governs the identification and safe use of hazardous materials

## Communication

It is important to the safety of all students and staff at a school that safety be taught and reinforced daily. Some basic methods of communication are:

- Safety Notice Board, containing posted minutes from the joint health and safety committee and the Occupational Health and Safety Act (must be posted by law)
- visible WHMIS/GHS binders, symbols and SDS sheets
- readily available manuals for the operation of various types machinery, tools, or equipment
- safety posters around major equipment and work areas
- clear and precise instructions, reinforced each time a procedure or equipment is used

- clearly marked areas that contain safety items such as fire extinguishers, eye wash stations, first aid kits, etc.

## Safety Expectations

The following are safety related expectations from The Ontario Curriculum 2009 Revised, Technological Education for:

### TGJ20 COMMUNICATIONS TECHNOLOGY

#### Grade 10 – Open

##### D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

D1 demonstrate an understanding of and apply safe work practices in communications technology activities;

D1.1 describe industry hazards (e.g., ergonomic hazards, mechanical hazards, temperature hazards, electrical hazards) and accident prevention methods (e.g., health and safety audits), and identify sources of accident prevention information (e.g., the Workplace Hazardous Materials Information System [WHMIS], GHS, Passport to Safety);

D1.2 apply safe work practices when performing communications technology tasks (e.g., use ergonomically designed equipment, keep work area tidy, avoid eye strain, use moderate volume levels).

### TGJ3M COMMUNICATIONS TECHNOLOGY,

#### Grade 11 University/College Preparation

##### D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

D1. demonstrate an understanding of and apply safe work practices when performing communications technology tasks;

D1.1 describe industry hazards (e.g., ergonomic hazards, electrical hazards, mechanical hazards), identify sources of hazard information (e.g., Workplace Hazardous Materials Information System [WHMIS], GHS, Passport to Safety), and describe methods of preventing accidents (e.g., safety audits, regular retraining in safety procedures);

D1.2 demonstrate an understanding of and apply safe work practices when performing communications technology tasks (e.g., use of safe procedures for lighting set-up, cable management, computer operation, and ladder use; use of ergonomic equipment and practices).

### TGJ4M COMMUNICATIONS TECHNOLOGY,

#### Grade 12 University/College Preparation

##### D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

D1. demonstrate an understanding of and apply safe work practices when performing communications technology tasks;

D1.1 describe industry hazards (e.g., ergonomic, mechanical, electrical, and chemical hazards), identify sources of hazard information (e.g., Workplace Hazardous Materials Information System [WHMIS], GHS, Passport to Safety), and describe methods of preventing accidents (e.g., safety audits, regular safety training);

D1.2 demonstrate an understanding of and apply safe work practices (e.g., using ergonomically designed equipment and work areas, keeping equipment in proper working order, maintaining a well-organized workplace, using lockout procedures when installing or maintaining equipment, wearing gloves when handling hot lights, using a spotter when climbing ladders, keeping liquids away from electronic equipment) when performing communications technology procedures.

## **TGJ30 COMMUNICATIONS TECHNOLOGY BROADCAST AND PRINT PRODUCTION**

### **Grade 11 - Open**

#### **D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES**

D1. demonstrate an understanding of and apply safe work practices in the use of audio, video, broadcast journalism, graphic arts, and printing equipment;

D1.1 describe industry hazards (e.g., ergonomic hazards, electrical hazards, mechanical hazards), identify sources of hazard information (e.g., Workplace Hazardous Materials Information System [WHMIS], Passport to Safety), and describe methods for preventing accidents;

D1.2 demonstrate an understanding of and apply safe work practices when using equipment (e.g., use of gloves and other protective clothing, correct seat placement, use of proper cable management techniques, use of ergonomically designed equipment, proper grounding of electrical devices, use of safety chains, correct use of ladders, proper use and storage of equipment);

D1.3 describe health risks (e.g., carpal tunnel syndrome, eye strain) associated with the use of audio, video, broadcast journalism, graphic arts, and printing equipment, and identify ways of avoiding them.

## **TGJ40 COMMUNICATIONS TECHNOLOGY DIGITAL IMAGERY AND WEB DESIGN**

### **Grade 12 - Open**

#### **D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES**

D1. demonstrate an understanding of and apply safe work practices in the use of photographic, imaging, and computer equipment;

D1.1 describe industry hazards (e.g., ergonomic hazards, electrical hazards, mechanical hazards), identify sources of hazard information (e.g., Workplace Hazardous Materials Information System [WHMIS], Passport to Safety), and describe methods for preventing accidents;

D1.2 demonstrate an understanding of and apply safe work practices when using equipment (e.g., use of gloves and other protective clothing, correct seat placement, use of proper cable management techniques, use of ergonomically designed equipment, proper grounding of electrical devices, use of safety chains, correct use of ladders, proper use and storage of equipment);

D1.3 describe health risks (e.g., carpal tunnel syndrome, eye strain) associated with the use of photographic, imaging, and computer equipment, and identify ways of avoiding them

# Acceptable Use Guidelines

Please see your Board / School Policy.

## Purpose of Acceptable Use Guidelines

Everyone using the Board's computing and information technology facilities and resources are required to know and abide by the Acceptable Use Guidelines. These guidelines define the responsibilities for the safe and acceptable use of the Board's computing and information technology facilities and resources.

**NOTE:** The Board makes no warranties of any kind, cannot be held responsible for accuracy or quality of information, and will not be responsible for any damages suffered through use of the Board's computer and information technology facilities and resources. Use of any information obtained from the Internet is at the user's own risk.

## Use of the Facility and Resources

Use of the computer and information technology facilities and resources of the Board are governed by all relevant federal (e.g. Copyright), provincial (e.g. Education Act), Board (e.g. Policies and Procedures) and local school (e.g. School Code of Behaviour) laws and regulations. Use of the Board computing and information technology facilities and resources by either staff or students for illegal, political, or commercial purposes is strictly prohibited. Each user must ensure they know and are able and willing to comply with these laws and regulations.

## Personal Safety

- Users will not post personal information about themselves or others. Personal contact information includes: full name, address, and telephone number.
- Users agree not to meet in person with someone they have met on-line.
- Users will immediately disclose to supervising teachers or other appropriate school employees, any messages they receive that are inappropriate, request personal information, or make them feel uncomfortable.

## Illegal Activities

- Users will not attempt to gain unauthorized access to the school system or to any other computer system using the Board's network. Users will not log into another user's account nor will they attempt to access the personal data of others.
- Users will not deliberately attempt to disrupt the computer system performance or to destroy data by spreading computer viruses or by using other means.
- Users will not make use of the Board's equipment or network systems to engage in any illegal activities.

## Security

- Users are responsible for the use of their individual account and should take all reasonable precautions to prevent others from being able to use their account. Under no

conditions should a user provide his/her password to another person.

- Users will immediately notify the system administrator if they have identified a possible security problem. Users will not intentionally search out security problems or experiment with security or operating systems unless under direct supervision of the Board's system administrators.
- Users will avoid the inadvertent spread of computer viruses by using virus protection procedures when downloading files. It is recommended that all personal files be checked for viruses prior to use on the Board's computer systems.
- Intentionally harming, destroying or damaging data, software, hardware or security systems is prohibited.
- Attaching non-Board equipment (laptops, handhelds, peripheral devices) to the Board's network is prohibited without express permission of the Board's network administration or agents.

## Inappropriate Communications

Restrictions against inappropriate communications apply to public messages, private messages, and materials posted on web pages.

- Users will not use obscene, profane, lewd, vulgar, rude, inflammatory, threatening or disrespectful language.
- Users will not post information that, if acted upon, could cause damage or danger of disruption to the system.
- Users will not engage in personal attacks, including prejudicial or discriminatory attacks.
- Users will not harass other persons. If a user is told by a person to stop sending them messages, they must stop immediately.
- Users will not knowingly or recklessly post false or defamatory information about a person or organization.
- Links from Board sites to non-Board sites must be periodically checked for appropriateness and adherence to the Acceptable Use Guidelines
- Guestbooks, message boards and other public domain methods of communications must not appear on Board sites.

## Respect for Privacy and Copyright

- Users will not broadcast a message that was sent to them privately without permission of the person who sent them the message.
- Users will not post private information about another person.
- Signed release forms must be on file for any individuals identified on networked sites. Signed forms must be obtained from parents or guardians for all students under the age of majority. No individual should be identifiable without express permission of the individual or their guardians.
- All postings under Board supervision must abide by all relevant copyright laws and regulations.

## Consequences of Misuse

If a user violates any of the above conditions of use, one or more of the following consequences may ensue:

- Suspension or cancellation of access privileges
- Payments for damages and repairs
- Discipline under other relevant Board policies; such as suspension or expulsion
- Civil or criminal liability under other relevant laws



# Sample Student - Acceptable Use Agreement Form

Please see your Board / School Policy.

## Student Acceptable Use Policy

This Student Acceptable Use Policy Document (SAUP) ensures that electronic communications resources are used in a manner that is efficient, professional, and will not jeopardize the network resources of this facility and organization. We are committed to giving our students access to the widest possible variety of learning opportunities. The global Internet network will provide you with access to a wide range of information and allow you to communicate with people worldwide. Use of the Internet for educational projects will assist in preparing you for life and work in the 21st century. In order to use this resource wisely and safely, you will need to demonstrate that you understand, and will practice, the proper and ethical use of this technology at all times.

### Personal Responsibility

All students are expected to use the Internet in a responsible manner, consistent with the educational purposes for which it was intended. Responsible, ethical use of the Internet includes the following:

- respect for the rights of others
- respect for the right of privacy in the use of e-mail accounts and communications media
- ethical use of electronic information
- adherence to rules governing the use of computers including Internet or computer use policies established by your school and school board

adherence to codes of conduct, such as Board policies, the Ontario Human Rights Code, Copyright Act, the Criminal Code of Canada and other laws

### Netiquette: The Rules of Internet Use

#### A. Personal Safety

- I will not reveal personal information about myself or other people without checking with my teacher first. (Personal information includes your full name, home address, telephone number, e-mail address, etc.). I will not reveal such information even if I believe that I am communicating with another student.
- I will not agree to telephone or meet with someone I have 'met' online.
- I will promptly report to my teacher any message I receive that is inappropriate or makes me feel uncomfortable.
- I will not assume that a message I send to someone else will be confidential.

#### B. Inappropriate Activities

I understand that inappropriate or unacceptable uses include, but are not limited to, the following:

- Communicating over the Internet without instructor permission
- Using obscene, threatening, harassing, or disrespectful language,
- Posting information that may cause damage or endanger persons or property,
- Posting false or defamatory information about a person or an organization,

- Reporting a private message without the permission of the sender,  
Using the school's Internet access for commercial

## Copyright Infringement and Plagiarism

I will respect the rights of copyright owners by not using works of others without permission. I will not copy images, text, graphics, or other materials, unless the source provides permission. If I am not sure, I will ask my teacher.

Plagiarism is taking the work ideas, writings or images of others and presenting them as if they were yours. If you make use of information from the Internet for projects, assignments or essays, you must acknowledge the source of the information either in a footnote or bibliography. Significant copying of information, images, and ideas requires express permissions from authors and/or owners of the original materials.

## Access to Controversial Materials

I will not use the Internet to access or send material that is profane, indecent, or obscene, that advocates illegal acts, or that advocates violence or discrimination towards other people. If I mistakenly access inappropriate information, I will immediately tell my teacher to protect myself against a claim that I have intentionally violated the Acceptable Use Policy.

### To Students:

I, the undersigned, indicate by my signature that I have read and understand fully the Acceptable Use Policy and related guidelines. I agree that I will abide at all times to the rules and responsibilities as outlined in the Acceptable Use Policy and related guidelines. I also agree that I clearly understand the consequences of my failure to abide by these rules and regulations.

### To Parents/Guardians:

As a parent or guardian signing below, I indicate that I understand the rules, regulations and consequences of misuse governing my son or daughter's use of the Board's computer and information technology facilities and resources. I understand that all Board staff will make every attempt to ensure proper and acceptable use in line with relevant policies, laws and regulations. I hereby allow my son or daughter to access the Board's supervised facilities and resources.

**Student Name:**

**Parent/Guardian Full Name:**

**Student Signature:**

**Parent/Guardian Signature:**

**Date:**

**Date:**

# Online Learning

## Overview

Online learning, also known as e-learning, offers secondary students an opportunity to take courses that are delivered entirely using the internet and do not require students to be physically present in the classroom. Students may be required to go into school to take a final exam or if they need to use the internet, devices and other school supports (for example, guidance, mental health and well-being supports). The Ministry (and the government), has made it mandatory to complete two courses on-line. Every learning environment has situations and issue that are specific to mode of program delivery.

## Program Delivery

[Teacher Guide PDF](#)

[Brightspace Learning Platform](#)

[Brightspace LMS for K-12 Ontario | D2L](#)

[Comparison of Brightspace Online Classroom and Google Classroom](#)

Google Classroom, [check out the steps here.](#)

Virtual Learning Environment (VLE) training resource videos  
Learn how the VLE can help you be more effective, engaging, and efficient  
[VLE Training | D2L](#)

## Safety

**Back to school tips for playing it safe online**

<https://www.priv.gc.ca/en/blog/20210902>

**TDSB Online Learning**

[Online Safety \(tdsb.on.ca\)](#)

**10 Online Classroom Rules For Your Virtual Classroom**

[10 Online Classroom Rules For Your Virtual Classroom | Games4esl](#)

**Virtual learning safety tips**

[Virtual Learning Safety Tips -- Campus Security & Life Safety \(campuslifesecurity.com\)](#)

**What do safe, respectful and inclusive virtual classrooms look like**

[What Do Safe, Respectful and Inclusive Virtual Classrooms Look Like? \(adl.org\)](#)

## **Online learning for secondary students**

[Online learning for secondary students | ontario.ca](https://www.ontario.ca/online-learning)

## **Learn at home**

## Student Conduct Agreement

Please see your Board / School Policy. A sample has been provided here.

### SAMPLE TGI Student Conduct Agreement

A signed agreement that outlines the student's responsibilities is one way of establishing the seriousness of daily safety vigilance. An agreement covers the elements common to all technology classrooms and labs and lays out the framework for a safe and healthy working environment for both staff and students. An example of an agreement is given below.

### Safety Awareness

#### Personal Protective Equipment [PPE]

1. Wear gloves, safety eyewear, aprons, masks, and other PPE as per instructed when using chemicals, heat, biological materials, hand or powered instruments and tools.
2. Ensure other workers and customers are protected before performing operations that can be dangerous. Ensure teacher supervision is at an appropriate level and the operation is approved to be conducted by the teacher.

#### Lift Support and Movement

1. Move heavy objects only with teacher approval.
2. Use assistance to lift items over 20 kilograms (40 pounds) or 2 meters (six feet) in length
3. Secure and support heavy or long objects on approved shelves.

#### Equipment

1. Operate equipment, chemicals or tools only after receiving proper instruction and permission from the teacher.
2. Never leave equipment, chemicals or tools unattended.
3. Do not attempt to repair any electrical connections, see your instructor.
4. Remove from service any equipment or tools that need repairing.

#### Storage and Handling of Chemical Substances

1. Understand and follow WHMIS, GHS, and SDS instruction before handling chemical substances.
2. Secure all flammable chemicals and corrosives in approved cabinets.
3. Maintain good housekeeping practices when dealing with chemical substances.
4. Be responsible for cleaning up your workstation, tools and work area.
5. Sort recyclable liquids and solids and biological materials into proper approved storage containers.

# Student Conduct Agreement Form

I, \_\_\_\_\_ agree to:

## Ensure a safe workplace

1. Inform teachers of all injuries, damaged equipment and potentially dangerous situations.
2. Make sure I know all fire exits and power shutdown switches and how to use them during emergency situations.
3. Not compromise the safety of others through horseplay or aggressive action.
4. Only use equipment when properly trained, always with any necessary personal protective equipment, and when I fully understand all related safety issues
5. Ask for assistance from the teacher when I am unsure of the proper procedures or health and safety issues
6. Inform teachers whether you are left-handed or right-handed as it may affect your use of tools – inform the teacher if you feel your height or mobility in relation to use of a piece of equipment is an issue requiring adjustment of the workspace.

## Prescribed and Non-prescribed Medications

1. Report any use of prescription medications and inform teachers of any possible side effects of the medication [e.g., penicillin, phenobarbital]
2. Report any use of non-prescription medication and any possible side effects of the medication [e.g., Reactine, Benadryl, cough syrups]
3. Never enter a shop or lab carrying, or under the influence of illegal substances
4. Alert teachers to any special allergic reactions or needs for epi-pen, or any other health concerns that may affect your performance of classroom tasks in terms of safety.

## Consequences for Improper Action

I understand that failure to comply with this agreement may result in injury to myself or others, and that failing to comply with safety procedures may result in my temporary removal from the class or shop.

**I have read the above and understand the expectations and consequences.**

Student Signature: \_\_\_\_\_

Parent Signature \_\_\_\_\_

Date: \_\_\_\_\_

## SECTION 2: SAFETY INFORMATION SHEETS

This section contains Safety Data Sheets (**listed in alphabetical order**) that can be used as:

- Student handouts
- Safety posters (can be mounted in and around specific equipment or bulletin boards)
- Teacher notes in project binders, safety binders or assessment plans
- Information that can support lesson plans

**Safety Information Sheets** contain information specific to various common tools and procedures. Before using them, ensure they accurately describe your own particular facilities and equipment, and that they align with specific manufacturer's safety instructions.

Our recommendation is to take a photo or use a web image of specific equipment that exists in your classroom to put on the back of these sheets if you are distributing them to students, offering a chance for additional student labeling and arrow drawing to highlight specifics of your local equipment, materials or tools.

Please see the Appendix C for the SafetyNET Resource to assist in reviewing your classroom for other items. You can include this document in the Safety Binder it recommends as well.

### NOTE:

All materials within this document are to be considered as suggestions and recommendations only. These are not legal documents and are not to be considered as legal requirements or as official policy. OCTE or the individual contributors makes no claim to the accuracy or the completeness of the enclosed documents and accepts no responsibility for any damages pertaining to their use. Users of this document should not assume all warnings and precautionary measures are contained herein, that additional information or measures are not required, or that local by-laws, regulations or Board policies are explicitly included.

# Audio

Many productions need to use audio equipment when covering events. Make sure you know how to handle audio equipment including their set-up, use, as well as storage procedures.

1. Before handling any speakers, mics and related audio equipment, ensure you understand the safe handling procedures as outlined by the designated instructions or posted classroom procedures. If you are unsure, see your instructor before proceeding.
2. Place any speakers/audio equipment in approved locations ONLY and away from major pathways to limit tripping hazards.
3. Avoid elevated/prolonged levels of loud music/noise that will impair hearing. In cases of feedback always reduce speaker volume.
4. No drink or food near audio equipment.
5. Do not use equipment if power cords are damaged.
6. Avoid trip hazards by not placing cords/cables in high traffic areas. Cable ramps/protectors/covers and gaffer tape should be used for cables in public areas.
7. Ensure that there is adequate ventilation when using mixing boards.
8. Always unplug power supply when equipment is not in use.
9. Take caution to avoid water spills on electrical equipment (e.g. mics, sound boards).
10. Do not place equipment on the edge of a table where it may fall off (e.g. mics).
11. Use appropriate PPE (personal protective equipment) at all times when handling heavy equipment such as speakers and other audio equipment. PPE includes eye protection, skin protection, gloves, aprons or coveralls, Foot Protection, as required under safe operating procedures.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**



# Batteries

Batteries can explode or leak if not handled correctly. The following precautions will help you stay safe when using batteries.

1. Only use batteries recommended by the manufacturer of the equipment.
2. Do not try and disassemble a battery.
3. Do not attempt to recharge a non-rechargeable battery.
4. Do not use a battery that appears to be deformed or discolored.
5. Batteries may be hot after prolonged use. Allow to cool before removing from device
6. Do not expose batteries to fire or corrosive chemicals.
7. Check to make sure your equipment is turned off before replacing a battery.
8. Do not charge hot batteries, Let them cool first

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

# Chemical Handling

Many operations in Communications Technology involve different types of chemicals such as CCD/CMOS cleaners/camera battery disposal. Make sure you know how to handle these chemicals including their use, as well as storage and disposal procedures.

1. Before handling any chemicals, ensure you understand the safe handling procedures as outlined on container labels, WHMIS 2015 safety data sheets, designated instructions or posted classroom procedures. If you are unsure, ask your instructor before proceeding.
2. Place any chemicals in approved, labeled containers ONLY.
3. DO NOT mix chemicals without prior knowledge of the consequences.
4. Discard any used chemicals in approved disposal containers ONLY. Inform your instructor of near-full containers. DO NOT dispose of chemicals down drains. Ask your instructor for proper disposal methods and procedures.
5. Ensure there is adequate ventilation when using chemical substances.
6. Do not use any chemical for purposes other than what it is designed for.
7. Use appropriate PPE (personal protective equipment) at all times when handling chemicals. PPE includes eye protection, skin protection, gloves, aprons or coveralls, foot protection, as required under safe operating procedures.
8. Take note of expiry dates and storage requirements of chemicals. Do not use chemicals beyond their expiration.
9. Use this link for more information regarding GHS <https://www.ccohs.ca/oshanswers/chemicals/ghs.html>

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## Computer Use – Copyright

If you create a song, video or photograph, you own it and no one else can use it without your permission. This is called copyright ©.

Copyright enables the people who create content to decide how they would like their material distributed and protects their ownership of that material.

1. Do not use peer-to-peer software to share material that has been copyrighted.
2. Do not use peer-to-peer software to download copyrighted material.
3. Obtain permission before you use someone else's content in your projects (e.g. songs that have been downloaded or ripped).
4. Do not store copyrighted material on your school computer account. The school is liable for stored copyrighted material.
5. Refer to school/board policies on copyrighted material.
6. Always ask for permission to use media (i.e. musician, artist, photographer, Production Company via snail mail, letter, email etc.).

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## Computer Use - Ergonomics

Understanding good posture and ergonomics when using a computer is important in the prevention of chronic health problems.

The points below give guidelines for preventing future health problems.

1. Adjust your chair and screen to a comfortable position for work. Your feet should sit comfortably on the floor.
2. Adjust your screen so that your eyes are positioned at the same height as the top of the screen. Look away from the monitor every 15 minutes to reduce eye strain.
3. Forearms should be horizontal when working with the keyboard.
4. Don't lean back. Keep your head aligned with your spine.
5. Use the computer with good general lighting.
6. Adjust your computer's monitor to avoid glare.
7. Stand up and take a break (about once every 50 minutes).

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## Computer Use – Social-Media

Your privacy and online safety is important, the following tips will help keep you safe.

1. Pause before you post. Take a moment to think about the material that you are about to post online. Once posted it cannot be taken back.
2. Report any inappropriate images that you receive to your teacher or an adult.
3. Do not post any personal details about yourself (e.g., home address, phone numbers, school name, social insurance number).
4. Only publish photos and videos that do not jeopardize your integrity or safety.
5. Do not accept friend requests from people that you do not know.
6. Do not respond to rude emails, comments or messages. Inform your teacher or an adult.
7. If you think someone is bullying or trying to intimate you, tell your teacher or an adult. Do not try to deal with it yourself.
8. Never share your passwords with others.
9. If something does not seem right or too good to be true, it probably is. Tell your teacher or an adult.
10. Never share embarrassing images/videos of others.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## Electrical Hazards

Touching an exposed electrical wire on electrical equipment (e.g. computer/camera /flash/strobes that has not been grounded properly causes shocks. Shock can vary from a slight tingle to a rocking jolt. A very severe shock can cause death. Do not touch equipment or electrical wires that have been exposed to fluids.

Protect yourself against shocks by following these rules:

1. Check the condition of electrical cords on equipment. Report all problems to your instructor immediately. Replace worn or damaged cords.
2. When disconnecting a cord, pull on the plug. Never pull on the cord. You may loosen the wires and get a shock.
3. Never handle electrical equipment with wet hands or while standing in water.
4. Wear rubber-soled shoes to prevent shocks. Rubber does not conduct electricity.
5. Be sure an appliance is turned off before plugging it into an outlet.
6. Use proper power supplies and cables designated for use with specific pieces of equipment. Check the plug ends.
7. Store all electrical equipment in areas designated by your instructor.
8. Never change or interfere with the operating environment set up by someone else.

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**

## Facility Emergency Procedures

1. Make sure you know the location of all fire alarms; emergency exits and emergency power stop buttons
2. EMERGENCY PROCEDURES AND EVACUATION ROUTES must be clear at all times, and occupants must know and understand these procedures and routes.
3. Be aware of specific safety procedures in case of tornado, fire, and lockdowns.

Location of Emergency Exits and Fire Alarms:

Locations of Emergency Stops:

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**

# Fall Protection

Studies of accidents in the Communication Technology industry (e.g. filming on location/rock concert stage) show that injuries are caused by falls. Observing a few simple rules will help to avoid most accidents of this type.

The points below give guidelines for preventing falls.

1. Walk; do not run.
2. Look where you are going at all times. Get assistance to carry items that can block your vision.
3. Be aware of your surroundings when working on location.
4. Tape down any cables.
5. Wear low-heeled, comfortable shoes with rubber soles. These grip the floor well.
6. Keep mats flat to prevent stumbling. Wrinkled or curled mats can cause falls.
7. Keep work areas and traffic lanes clear. Electrical cords should not extend across high traffic lanes.
8. Use a step stool (never a chair or table) if you need to reach something on a high shelf. Use a spotter when using a step stool or ladder.





**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**



# Fire Extinguishers

1. Know your Fire Safety Plan
2. If you see a fire, call for attention, get everyone out, pull fire alarm.
3. Stay calm.
4. If using a fire extinguisher:
  - **PULL THE PIN, AIM LOW AT BASE OF FIRE**
  - **SQUEEZE HANDLE, SWEEP SLOWLY AT BASE OF FIRE**
  - **STAY LOW TO AVOID HEAT AND SMOKE**
5. Have the fire department check to make sure the fire is out.
6. Ventilate when fire is completely out.

*Learn and know the types of fire extinguishers (see below):*

<b>CLASS A</b> water		<b>Ordinary Combustibles:</b> paper, cloth, wood, rubber, many plastics.
<b>CLASS B</b> CO <sub>2</sub>		<b>Flammable Liquids:</b> oil, grease, gasoline, some paints, solvents etc.
<b>CLASS C</b> dry chemical		<b>Electrical:</b> wiring, fuse boxes, electrical equipment etc.
<b>CLASS D</b> special liquid or powder		<b>Combustible Metals:</b> magnesium, sodium.

# First Aid

The immediate response to an emergency often involves First Aid. First Aid involves assisting an injured person until professional medical help can be provided.

The general action tips in the list below should be followed in an emergency. They do not replace the need to be properly trained in first aid. Your teacher will provide you with instructions on what to do in cases of emergencies.

1. Check the scene for dangers, (e.g. electrical shock hazards, chemical spills, hot objects, fire). Stay calm and call out for help. Do not touch the victim until immediate dangers such as electrical current are removed.
2. Assist, if asked by your teacher, to keep the victim comfortable and calm.
3. Call the office for medical help if requested by the teacher.
4. Care for the victim by administering first aid according to your teacher's instructions.
5. Help keep people who are not needed away from the victim.

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**

# First Aid Kits

**ALL INJURIES MUST BE REPORTED TO MAIN OFFICE  
REPORT ANY USE OF FIRST AID KIT TO TEACHER TO ENSURE THAT ANY SUPPLIES  
THAT ARE USED ARE REPLACED**

Suggested list (add items specific to your needs) See WSIB Regulation 1101, Required first aid kit items (at <http://www.wsib.on.ca/wsib/wsibsite.nsf/Public/PreventionYHSRR>)

**DATE CHECKED:**  
**CHECKED BY:**

ITEM	Number
St. Johns Ambulance First Aid Manual	
Masks	
Disposable latex gloves	
Pair of scissors	
Plastic Emesis basin	
Wooden splints	
Rolls of splint padding	
Adhesive strip bandages	
3"x3" sterile gauze pads	
4" compress bandages	
6" Tensor bandages	
Triangular bandages	
Safety Pins	
Sterile gauze bandages	

	Sterile gauze field dressing		
	1 ½" width roll adhesive tape		
	Antiseptic swabs		
	Burn cream		
	Instant cold packs		
<b>AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR</b>			

## General Housekeeping

1. Everything has a proper storage location. (e.g., lights, cameras, mixing boards).  
If you don't know where it is, please ask.  
If you do know, put it back.
2. If it is broken, report it.  
If it does not work, report it.  
If it is broken or does not work, do not use it.
3. Dirt, dust, debris are harmful to your safety and health. Even if you didn't put it there, pick it up, clean it up, or move it aside.
4. If you spill or drop any fluid on the floor, clean it, or use absorbent materials. You are responsible for prevention of injuries.
5. Never block fire exits, fire alarms, doorways, aisles, and electrical breakers or machine switches for any reason at any time.
6. Chemicals all have proper storage containers.  
Make sure you use them.  
Never mix chemicals.

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**

# General Safety

Safety is the number one priority of your instructor, keep these general safety guidelines in mind when in Communication Technology

1. Read all safety instructions in the product manual.
2. Follow all safety instructions.
3. Keep all safety instruction manuals in a central location.
4. Do not circumvent any safety apparatus located on any device.
5. Use attachments specified by the manufacturer.
6. Unplug devices when not in use.
7. Protect power cords from being pinched or walked on.
8. Do not try and service a device yourself. Contact a qualified service person.
9. Overloading wall outlets can result in electrical shock.
10. Remove damaged power cords from use.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## Heat Press Safety

Many operations in manufacturing involve different types of Computer Aided Machinery. Heat Presses are a fun and additional way to support design work.

1. Read all instructions.
2. Use a heat press only for its intended use.
3. To reduce the risk of electric shock, do not immerse the heat press in water or other liquids.
4. Never pull cord to disconnect from outlet, instead grasp plug and pull to disconnect.
5. Do not allow the cord to touch hot surfaces, allow the heat press to cool completely before storing.
6. Do not operate the heat press with a damaged cord or if the equipment has been dropped or damaged. To reduce the risk of electric shock, do not disassemble or attempt to repair the heat press. Take it to a qualified service person for examination and repair.
7. Close supervision is necessary for any heat press being used by or near small children. Do not leave equipment unattended while connected.
9. To avoid burns, do not touch hot metal parts or the heated plate during use.
10. To reduce the likelihood of circuit overload, do not operate other high voltage equipment on the same circuit.
12. Keep hands clear of the upper heat press plate during lock down as the pressure may cause injury.
13. Heat press should be placed on a sturdy, suitable table
14. Work area must be kept clean, tidy and free of obstructions.
15. Consult the Material Safety Data Sheets (MSDSs) for safety information regarding the plastic(s), materials you may be using.

# Lifting

A strain is a feeling of stiffness or soreness from using muscles too long or the wrong way. Strains usually occur in the lower back, the weakest point of the spinal column. In the media industry such as preparing for on location filming or preparing for a stage concert, lifting heavy loads incorrectly often causes strains. Once your back has been strained or weakened, it can easily be injured again.

1. You can prevent back strain by lifting with your strong leg muscles. When you must lift a heavy object, squat with knees bent, feet apart, and back straight. With your arms straight, get a firm grip on the load. Stand up keeping your back straight. Make your leg muscles do the work. Do not twist or bend.
2. Set objects down by using the same method in reverse. Ask for help if the object is too heavy. Use a cart to carry heavy objects any distance.
3. Heavy articles should be stored on the bottom shelves.
4. Check the weight of the object before moving it. In the Province of Ontario, unassisted manual lifting is limited to 23 kg (51 pounds). Do not lift any load if it cannot be handled safely due to its size/shape.

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**



# Lighting

Many productions need to use portable lighting kits when covering events. Make sure you know how to handle these lights including their set-up, use, as well as storage procedures.

1. Before handling any lights, ensure you understand the safe handling procedures as outlined by the designated instructions or posted classroom procedures as appropriate. If you are unsure, see your instructor before proceeding. (e.g. flash units, pocket wizards, power units).
2. Place any lights in approved locations ONLY and away from major pathways to limit tripping hazards.
3. DO NOT touch hot lights or barn doors with bare hands. Use extra caution once they've been turned on. Only use approved gloves provided by instructor
4. Inform instructor of any burnt bulbs. DO NOT attempt to replace bulbs. Ensure that power cords are free from damage.
5. All lights are to be equipped with safety scrims to prevent bulb from exploding on to talent.
6. Dispose of fluorescent lights in approved containers only and not in regular garbage. Ask your instructor for proper disposal methods and procedures.
7. Ensure there is adequate ventilation when using portable lighting. Be aware of sprinkler systems.
8. Do not use any light for any other purpose other than what it is designed for. Do not climb on desks/chairs to adjust lighting. Lighting should be adjusted by instructor.
9. Take caution when folding tripod to avoid pinching.
10. Use sandbags on lighting stands to prevent from tipping.
11. Use appropriate PPE (personal protective equipment) at all times when handling lights. PPE includes eye protection, skin protection, gloves, aprons or coveralls, foot protection, as required under safe operating procedures.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## On-Location Camera

Portable cameras are a great way to add action and excitement to a production. However, some precautions must be taken to ensure the uttermost safety.

1. Locate cameras away from high traffic areas.
2. Minimum of two students setting up cameras at all times.
3. Do not force camera equipment together. It may be broken or something is wrong. Inform instructor or ask for assistance.
4. Use a spotter when operating hand-held cameras. Use extra care when moving so as to not trip over camera cable.
5. Stay off of playing fields and use a spotter, cones or caution tape when setting up near sidelines.
6. If camera is located on scaffolding, safety rails must be present. For locations higher than 3 meters safety harnesses must be worn.
7. Do not attempt to operate equipment in wet or damp locations. If rain is a possibility make sure to use rain covers for cameras. Ask permission from instructor before proceeding.
8. Stay in contact with control room in case of emergencies wear intercom head-sets once at location.
9. Use proper power supplies and cables designated for use with specific pieces of equipment.
10. Store all electrical equipment in areas designated by your instructor.
11. Never change or interfere with the operating environment without permission.
12. Inspect all controls, locks and mounts on all tripods to ensure operator and equipment safety.

***AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR***

## On-Location Crew

1. Make initial contact with facility organizers such as teachers, administration and custodial staff.
2. Be realistic with your shooting schedule and do not rush to complete a production.
3. NO students are to leave school property without expressed consent from teachers, administration and parents.
4. Motorized vehicles are not to be used for shooting.
5. Students are not to drive themselves to a location unless prior consent given by teacher, administration and parents. Students over the age of 18 must also get authorization before proceeding.
6. You have the right to refuse unsafe work. If you feel that a location is unsafe in any way just say "No" and a safety representative will evaluate the situation.
7. Make sure you know the location of all fire alarms, emergency exits and emergency power stop buttons.
8. EMERGENCY PROCEDURES AND EVACUATION ROUTES must be clear at all times and occupants must know and understand these procedures and routes.

***AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR***

## On-Location Lighting

Many productions need to use portable lighting kits when covering events. Make sure you know how to handle these lights including their set-up, use, as well as storage procedures.

1. Before handling any lights, ensure you understand the safe handling procedures as outlined by the designated instructions or posted classroom procedures. If you are unsure, see your instructor before proceeding.
2. Place any lights in approved locations ONLY and away from major pathways to limit trip hazards.
3. DO NOT touch hot lights or barn doors with bare hands. Use extra caution once they have been turned on. Only use approved gloves provided by instructor
4. Inform instructor of any burnt bulbs. DO NOT attempt to replace bulbs.
5. All lights are to be equipped with safety scrims to prevent bulb from exploding on to subjects.
6. Dispose of fluorescent lights in approved containers only and not in regular garbage. Ask your instructor for proper disposal methods and procedures.
7. Ensure that there is adequate ventilation when using portable lighting being aware of sprinkler systems.
8. Do not use any light for any purpose other than what it is designed for.
9. Take caution when folding tripod down to avoid pinching hands.
10. Use sandbags on lighting tripods to prevent tipping.
11. Use appropriate PPE (personal protective equipment) at all times when handling lights. PPE includes eye protection, skin protection, gloves, aprons or coveralls, foot protection, as required under safe operating procedures.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## On-Location Set Up / Tear Down

Studies of accidents in the broadcast industry show that most injuries are caused by rushing. Observing a few simple rules will help to avoid most accidents of this type.

The points below give guidelines for preventing injury.

1. Check with teacher before heading out to location and discuss any safety precautions.
2. Walk; do not run.
3. Wear closed toe comfortable shoes with rubber soles and long pants.
4. Keep floor clean and dry. Make sure all camera cables and electrical cords are covered or taped down and away from high traffic areas.
5. Wear gloves when rolling or unrolling camera cables from a reel.
6. Hard hats are required when working with overhead lights or setting up stages with trusses.
7. Keep floor mats flat to prevent stumbling. Wrinkled or curled mats can cause falls.
8. Keep work areas and traffic lanes clear. Electrical cords should not extend across traffic lanes.
9. Look where you are going at all times. Get assistance to carry items that can block your vision and use dolly carts for heavier items.
10. Use a stepladder (never a chair or table) to climb onto scaffolding, set-up equipment at a higher location or install overhead lighting.
11. If location is outdoors ensure proper use of PPE (personal protective equipment). In sunny locations wear hats and sunscreen. If feeling dizzy ask for help and seek shade.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

## On Location - Site Check

When working away from the classroom, always be aware of hazard at the locations. Location contacts, wearing of appropriate clothing, keeping work areas clean, and knowing the area you are working in can minimize or reduce risks associated with hazards.

1. Contact location representative. for permission to shoot in location (Principal, Classroom Teacher, Custodian)
2. Clarify location directions and entrances for crew and talent use.
3. Always wear proper Personal Protective Equipment PPE as directed (e.g., closed toe shoes, long pants, gloves, ear plugs, etc.)
4. Check location for all camera, lighting and audio placements.
5. Find safe storage for all equipment, tools and materials away from traffic and ideally back in cases when not needed.
6. Check for any tripping hazards.
7. Call attention to any potential or dangerous conditions to your teacher, supervisor and/or instructor immediately.
8. Check hydro source with circuit tester to make sure wiring and polarity is correct.
9. Check to see if passes are required for crew to enter location.
10. Check to see if security personnel are present in case of emergencies.
11. Secure area from bystanders with caution tape or traffic cones

***AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR***

# Personal Hygiene

Communications technology technicians share direct contact with computer keyboards, cameras etc., and may, as a result spread flu/cold/viruses and even food-borne illnesses if they are eating over keyboards, etc. These occurrences can be reduced if the worker practices good grooming habits.

The following points outline some of the things the Communication Technology student can do to maintain good hygiene.

1. Bathe daily and wash hair regularly.
2. Fingernails should be clean, trimmed neatly, and relatively short.
3. Brush and floss after meals.
4. Always wear clean clothes to work.
5. Shoes should be appropriate to the workplace i.e. location shoots at a factory: closed toe with non-slip soles.
6. Adhere to sanitary procedures on location i.e. you may need to restrain your hair with a hairnet or hat when doing a shoot in a restaurant.
7. Never use soiled or ripped gloves when working with lighting.
8. Keep cuts completely covered.

**AT ALL TIMES – IF IN DOUBT, SEE YOUR INSTRUCTOR**

# Photography

1. Students must take in-class camera training session(s) to ensure proper use of school video cameras.
2. Wear proper Personal Protective Equipment where mandated in specific locations such as construction workshops. (e.g., closed toe shoes, long pants, gloves, ear plugs, etc.)
3. Scout new locations with safety audits to check for electrical outlets, trip hazards, high traffic areas, and any possible safety concerns.
4. Maintain safe storage for all equipment, tools and materials away from traffic areas where equipment can be broken or stolen. Keep equipment in storage cases when not in use.
5. Maintain a safe workspace on-location and in the classroom to minimize tripping hazards and maintain electrical safety. (i.e., cords, cameras, receptacles, lighting)
6. Identify any potential or dangerous conditions and notify your teacher, supervisor and/or instructor immediately.
7. Always keep one hand on a camera when you are moving with a camera/tripod.
8. Designate one crew member/director to report to teacher regarding safety issues.
9. Always turn off camera when removing/inserting camera cards.(i.e. SD memory cards to ensure that card images are not lost or corrupted)
10. Use sandbags to keep tripods/lights from falling at shooting locations.
11. Practice shooting with blocking so that camera operators don't trip while shooting, bump head on overhead objects etc. Don't point camera lens or look through camera view finder into the sun. Don't leave equipment in the sun.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**



# Speedlights

Many productions need to use of portable lighting kits when covering events. Make sure you know how to handle these lights including their set-up, use, as well as storage procedures.

1. Before handling any lights, ensure you understand the safe handling procedures as outlined by the designated instructions or posted classroom procedures as appropriate. If you are unsure, see your instructor before proceeding. (e.g., flash units, pocket wizards, power units.)
2. Liquid seeping from batteries is corrosive. If observed do not use and bring it to the attention of your instructor.
3. If a Speedlight is dropped and damaged, do not touch the interior parts. These parts could be electrically charged and cause electric shock.
4. If you detect smoke or notice a burning smell, turn the Speedlight off immediately and bring to the attention of your instructor.
5. Do not expose the Speedlight to rain or submerge it in liquid.
6. Do not fire the flash unit at the eyes of a driver in a moving vehicle.
7. Flashing a Speedlight directly in the eyes of someone could damage their retinas.
8. Flashing a Speedlight directly on someone's skin could result in a burn.
9. Use sandbags to secure your Speedlight on a light stand.
10. Use only batteries specified in the owner's manual.

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

# Video

1. Students must take in-class video camera training session(s) to ensure proper use of school video cameras.
2. Wear proper Personal Protective Equipment where mandated in specific locations such as construction workshops. (e.g., closed toe shoes, long pants, gloves, ear plugs, etc.)
3. Scout new locations with safety audits to check for electrical outlets, trip hazards, high traffic areas, and any possible safety concerns.
4. Maintain safe storage for all equipment, tools and materials away from traffic areas where equipment can be broken or stolen. Keep equipment in storage cases when not in use.
5. Maintain a safe workspace on-location and in the classroom to minimize trip hazards and maintain electrical safety. (i.e., cords, cameras, receptacles, lighting)
6. Identify any potential or dangerous conditions and notify your teacher, supervisor and/or instructor immediately.
7. Always keep one hand on a camera when you are moving with a camera/tripod.
8. Designate one crew member/director to report to teacher regarding safety issues.
9. Always turn off camera when removing/inserting camera cards. (i.e. SD memory cards to ensure that card images are not lost or corrupted)
10. Use sandbags to keep tripods/lights from falling at shooting locations.
11. Practice shooting with blocking so that camera operators don't trip while shooting, bump head on overhead objects, etc. Don't point camera lens or look through camera view finder into the sun. Don't leave equipment in the sun.

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## Vinyl Cutter and Printer

Many operations in manufacturing involve different types of Computer Aided Machinery. Vinyl Cutters/ Printers are these.

1. Make sure you know how to handle the machine and conduct regular cleaning maintenance.
2. Be sure to read and understand the owner's manual before operating.
3. Use only the power adapter supplied with the printer, or the printer may be damaged, with a risk of fire.
4. When conducting any maintenance to the machine. The printer must be powered off. Prior to any work or material exchanges.
4. Consult the Material Safety Data Sheets (MSDSs) for safety information regarding the plastic(s), inks and solvents you may be using.
5. Never reach inside the Vinyl cutter/ printer while it is in operation. There is risk of injury from moving mechanical parts or electric shock.
6. 4. Never pull cord to disconnect from outlet, instead grasp plug and pull to disconnect.

# WHMIS SDS SAFETY LABELS

## ***GENERIC SAFETY DATA SHEETS FOR PERSONAL ENHANCEMENT PRODUCTS PROTECTED BY TRADE SECRET LAWS (SDS)***

### **MATERIAL IDENTIFICATION**

TRADE NAME/MATERIAL NAME

PRODUCT USE

OTHER NAMES:

MANUFACTURER'S/SUPPLIER'S NAME:

ADDRESS:

EMERGENCY TELEPHONE:

FIRST AID PROCEDURE

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

# WHMIS REGULATIONS

- The acronym WHMIS stands for *Workplace Hazardous Materials Information System*
- Canada aligned the Workplace Hazardous Materials Information System (WHMIS) from 1988 with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in 2015.
- Suppliers and employers must use and follow the WHMIS 2015 requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada.
- SDS stands for *Safety Data Sheets*
- SDS is a printout on paper that identifies how to handle, store, use, health effects if exposed, emergency procedures, and protective measures
- Employers will be required to make sure that all hazardous products (as defined by the *Hazardous Products Regulations* have an up-to-date SDS when it enters the workplace.
- The SDSs must be readily available to the workers who are exposed to the hazardous product, and to the health and safety committee or representative.
- A label will be required to be updated when the supplier becomes aware of any "significant new data". According to the regulation, the definition of significant new data is:
  - "New data regarding the hazard presented by a hazardous product that changes its classification in a category or subcategory of a hazard class, or result in its classification in another hazard class, or change the ways to protect against the hazard presented by the hazardous product." (Source: *Canada Gazette*, Part II, Hazardous Products Regulations, Section 5.12 (1))
- Labels will be required to be updated within 180 days of the supplier being aware of the new information. If you purchase a product within this 180-day time period, the supplier must inform you of the changes, and the date they became available, in writing.

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## WHMIS LABELS

**Supplier labels** must be attached to the controlled product container which has detailed information about the product. Legislation states that 10 kg or more of a controlled product or hazardous material from a supplier must contain the following information:

- The hatched border that was required under WHMIS 1988 is not required under WHMIS 2015. However, it is also not forbidden to use the hatched border, so you may see it on a WHMIS 2015 label.
- Labels must be in English and French. They may be bilingual (as one label) or be presented as two labels (one each in English and French).
- The pictogram, signal word, and hazard statement are to be grouped together,
- To be clearly and prominently displayed on the container,
- To be easy to read (e.g., you can see it easily without using any item except corrective glasses), and
- To be in contrast with other information on the product or container.
- Labels will be required to be updated within 180 days of the supplier being aware of the new information. If you purchase a product within this 180-day time period, the supplier must inform you of the changes, and the date they became available, in writing.
- **Product identifier** – the brand name, chemical name, common name, generic name, or trade name of the hazardous product.
- **Initial supplier identifier** – the name, address, and telephone number of either the Canadian manufacturer or the Canadian importer\*.
- **Pictogram(s)** – hazard symbol within a red "square set on one of its points".
- **Signal word** – a word used to alert the reader to a potential hazard and to indicate the severity of the hazard.
- **Hazard statement(s)** – standardized phrases which describe the nature of the hazard posed by a hazardous product
- **Precautionary statement(s)** – standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.

- **Supplemental label information** – some supplemental label information is required based on the classification of the product. For example, the label for a mixture containing ingredients with unknown toxicity in amounts higher than or equal to 1% must include a statement indicating the percent of the ingredient or ingredients with unknown toxicity. Labels may also include supplementary information about precautionary actions, hazards not yet included in the GHS, physical state, or route of exposure. This information must not contradict or detract from the standardized information.

**In addition to this and if the container has more than 100 milliliters the following information must be on the label:**

- Risk time factors
- Precautionary measures while using or being exposed to the product/chemical
- First aid measures to address immediate injuries and not progressive illnesses

**Workplace labels** must be identified on a container that is not from the supplier, and must contain the following information:

- Product name (matching the SDS product name).
- Safe handling precautions may include pictograms or other supplier label information.
- A reference to the SDS (if available).
- First aid measures

**AT ALL TIMES – IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR**

# Product K1 / Produit K1



## Danger

Fatal if swallowed.  
Causes skin irritation.

### Precautions:

Wear protective gloves.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using  
this product.

Store locked up.  
Dispose of contents/containers in  
accordance with local regulations.

IF ON SKIN: Wash with plenty of water.  
If skin irritation occurs: Get medical  
advice or attention.  
Take off contaminated clothing and  
wash it before reuse.  
IF SWALLOWED: Immediately call  
a POISON CENTRE or doctor.  
Rinse mouth.

## Danger

Mortel en cas d'ingestion.  
Provoque une irritation cutanée.

### Conseils :

Porter des gants de protection.  
Se laver les mains soigneusement après manipulation.  
Ne pas manger, boire ou fumer en manipulant  
ce produit.











Garder sous clef.  
Éliminer le contenu/récipient conformément aux  
règlements locaux en vigueur.

EN CAS DE CONTACT AVEC LA PEAU : Laver  
abondamment à l'eau.  
En cas d'irritation cutanée : Demander un avis  
médical/consulter un médecin.  
Enlever les vêtements contaminés et les laver  
avant réutilisation.  
EN CAS D'INGESTION : Appeler immédiatement un  
CENTRE ANTIPOISON ou un médecin.  
Rincer la bouche.

Compagnie XYZ, 123 rue Machin St, Mytown, ON, N0N 0N0 (123) 456-7890



## WHMIS 2015 Pictograms

	<b>Exploding bomb</b> (for explosion or reactivity hazards)		<b>Flame</b> (for fire hazards)		<b>Flame over circle</b> (for oxidizing hazards)
	<b>Gas cylinder</b> (for gases under pressure)		<b>Corrosion</b> (for corrosive damage to metals, as well as skin, eyes)		<b>Skull and Crossbones</b> (can cause death or toxicity with short exposure to small amounts)
	<b>Health hazard</b> (may cause or suspected of causing serious health effects)		<b>Exclamation mark</b> (may cause less serious health effects or damage the ozone layer*)		<b>Environment*</b> (may cause damage to the aquatic environment)
	<b>Biohazardous Infectious Materials</b> (for organisms or toxins that can cause diseases in people or animals)				

\* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.

## WHMIS 2015 Pictograms



The **flame** pictogram is used for the following classes and categories:

- Flammable gases (Category 1)
- Flammable aerosols (Category 1 and 2)
- Flammable liquids (Category 1, 2 and 3)
- Flammable solids (Category 1 and 2)
- Pyrophoric liquids (Category 1)
- Pyrophoric solids (Category 1)
- Pyrophoric gases (Category 1)
- Self-heating substances and mixtures (Category 1 and 2)
- Substances and mixtures which, in contact with water, emit flammable gases (Category 1, 2 and 3)
- Self-reactive substances and mixtures (Types B\*, C, D, E and F)
- Organic peroxides (Types B\*, C, D, E and F)



The **flame over circle** pictogram is used for the following classes and categories:

- Oxidizing gases (Category 1)
- Oxidizing liquids (Category 1, 2 and 3)
- Oxidizing solids (Category 1, 2 and 3)

## WHMIS 2015 Pictograms



The **gas cylinder** pictogram is used for the following classes and categories:

- Gases under pressure (Compressed gas, Liquefied gas, Refrigerated liquefied gas, and Dissolved gas)



The **corrosion** pictogram is used for the following classes and categories:

- Corrosive to metals (Category 1)
- Skin corrosion/irritation – Skin corrosion (Category 1, 1A, 1B and 1C)
- Serious eye damage/eye irritation – Serious eye damage (Category 1)

## WHMIS 2015 Pictograms



The **exploding bomb** pictogram is used for the following classes and categories:

- Self-reactive substances and mixtures (Types A and B\*)
- Organic peroxides (Types A and B\*)



The **skull and crossbones** pictogram are used for the following classes and categories:

- Acute toxicity –
  - Oral (Category 1, 2 and 3)
  - Dermal (Category 1, 2 and 3)
  - Inhalation (Category 1, 2 and 3)

## WHMIS 2015 Pictograms



The **health hazard** pictogram is used for the following classes and categories:

- Respiratory or skin sensitization – Respiratory sensitizer (Category 1, 1A and 1B)
- Germ cell mutagenicity (Category 1, 1A, 1B and 2)
- Carcinogenicity (Category 1, 1A, 1B, and 2)
- Reproductive toxicity (Category 1, 1A, 1B and 2)
- Specific Target Organ Toxicity – Single exposure (Category 1 and 2)
- Specific Target Organ Toxicity – Repeated exposure (Category 1 and 2)
- Aspiration hazard (Category 1)



The **exclamation mark** pictogram is used for the following classes and categories:

- Acute toxicity – Oral, Dermal, Inhalation (Category 4)
- Skin corrosion/irritation – Skin irritation (Category 2)
- Serious eye damage/eye irritation – Eye irritation (Category 2 and 2A)
- Respiratory or skin sensitization – Skin sensitizer (Category 1, 1A and 1B)
- Specific target organ toxicity – Single exposure (Category 3)



The **biohazardous infectious** materials pictogram is used for the following classes and categories:

- Biohazardous Infectious Materials (Category 1)



**Environment.** May cause damage to the aquatic environment.

The Global Harmonized System has defined an environmental hazard group. This group was not adopted in WHMIS 2015; However, you may see this symbol on labels and Safety Data Sheets, and WHMIS allows this, so we are including it in this document.

## SECTION 3: SAFETY ASSIGNMENTS AND TESTS

This section contains sample tests and assignments related to safety. They are designed as samples that can be used as written or edited for your purposes. They can be used for evaluation of the safety expectations of the course, or as tools to assess the student's knowledge and understanding of safety. It is recommended that all teachers keep a record of all test or assignment results and/or passports (next section) as verification of each student's understanding of safe concepts and practices.

Note: These tests and assignments are not directly correlated with the TGJ Safety Data Sheets. The equipment and safety practices in individual facilities will determine how a teacher can best use these resources in the teaching of safe work practices. As well, with the SafetyNET resources online, there are additional resources always being updated, and available for download in .zip files.

### NOTE:

All materials within this document are to be considered as suggestions and recommendations only. These are not legal documents and are not to be considered as legal requirements or as official policy. OCTE or the individual contributors makes no claim to the accuracy or the completeness of the enclosed documents and accepts no responsibility for any damages pertaining to their use. Users of this document should not assume all warnings and precautionary measures are contained herein, that additional information or measures are not required, or that local by-laws, regulations or Board policies are explicitly included.

Please see specific equipment manuals for further safety information, as well as local, Board and school policies and regulations. Please review exemplar TGJ SafetyNET resource documents for experienced teacher tips and customization options for your course projects.

Please see specific equipment manuals for further safety information, as well as local Board and school policies and regulations.

## Safety Assignment # 1 – Site Check and Safety Inspection

Teacher Inspecting: \_\_\_\_\_

Student Inspecting: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

AREA INSPECTED	Noted	Comments
<b>Contacts</b>		
Client representative on location (organization contact)		
Location representative (teacher, administration)		
Technical representative (custodian, IT)		
<b>Location</b>		
Direction for talent and crew		
Specific entrances for talent and crew		
<b>Security</b>		
Passes required for technical crew		
Conditions? Are security personnel required?		
<b>Safety</b>		
Check location for all camera placements		
Discuss concerns and recommendations with site manager		
Determine mats, ramps, barriers and signage required to protect public		
Determine main safety points to be covered during pre-setup briefing		
<b>Load In / Strike</b>		
Distance from access doors to shooting location		



Narrow doors, corridors, stairs, or other obstructions		
<b>Power</b>		
Number, capacity and location of local circuits and service panel		
Availability of house electrician		
Electrical equipment and extension cords		
Emergency power switches/breakers		
<b>Area Plan</b>		
Fire extinguishers		
Exit and light Fixtures		
Room dimensions, height		
Traffic areas		
Ceiling tiles and fixtures		
Floor tiles/carpet and surfaces		
Windows, public doors, fire exits etc.		
First Aid kit		

## Assignment # 2 – Room Inventory and Safety Identification

Use a ruler/straight edge to draw an accurate floor plan of your shop and identify the location of the following. Show the work zones around major equipment. Check off each item to ensure you have covered everything:

Entrance/exit doors	
Safety exit	
Fire extinguishers	
Fire alarm	
First aid kit	
Lighting/strobes storage	
Electrical outlets	
Waste disposal containers	
Work surfaces	
Computer work areas	
Equipment areas	
Chemicals storage	
Consumable supplies storage	
New and used battery storage	
Traffic areas	
Lighting equipment i.e. strobes, LED's	

## Safety Assignment # 3 – General Safety

In groups of two, analyze the issue you have been assigned and provide a detailed description of the safety requirements for that issue. Information for research may be found in a variety of places including textbooks, the Internet, equipment manuals, or from local suppliers. A 5 -10-minute group presentation will be made to the class in which your group will describe the topic and the importance of safety in the Communication Technology environment.

- Group 1     Event planning i.e., school stage concert
- Group 2     Camera with battery leakage
- Group 3     Computer station ergonomics
- Group 4     Safe equipment storage and transportation procedures
- Group 5     Proper hygiene working on a computer keyboard in small office space with other students
- Group 6     Electrical cord and equipment safety
- Group 7     Safe cleaning procedures of CCD/CMOS
- Group 8     Chemical use and storage
- Group 9     Dealing with cuts, falls and strains

## Safety Assignment # 4 – Perform a Safety Audit

Once a month, a group will be assigned to perform a safety audit of the studio and/or lab. To accomplish this task, the group must first design a safety checklist that will be used for the inspection. The checklist must include the headings of:

1. First aid kit content status
2. Status of fire protection equipment
3. Status of cleaning supplies and equipment
4. Status of storage areas of cameras, tripods, lighting
5. Status of tools and equipment i.e. strobes, stools, chairs, paper cutter, printers, computers, electrical cords
6. Status of housekeeping

Your teacher will give you information about safety standards. Prepare a checklist for a safety audit of the shop. When you have approval for your checklist, perform the initial audit and report back to your teacher.

## Video- Quiz Assignment #5

1. PPE refers to a) personal protective eyewear b) property, plant and equipment, c) personal protective equipment, d) park palace entertainment
2. List four examples of safety equipment: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_
3. Scouting always considers safety first. True or False. (Circle).
4. Maintaining safety and care of equipment is the teacher's responsibility. True or False (Circle)
5. A way to avoid tripping hazards on-location is to: (complete the sentence) \_\_\_\_\_.
6. Remember to turn the camera \_\_\_\_\_ every time you remove the memory card from the camera.
7. One should always stabilize tripods/lighting stands by a) keep them out of high traffic areas b) using gaffer tape c) sandbagging stands/tripods, d) all of the above.
8. You can protect the camera LCD screen/monitor by: a) cleaning with lens cleaner/cloth b) keeping screen closed on camera while in transit c) not puncturing with sharp objects or leaving in the sun d) all of the above.
9. Servicing a video camera should be done by: \_\_\_\_\_.
10. Three areas to avoid placing a camera: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_
11. Answers 1(c), 2(closed toe shoes, long pants, gloves, ear plugs, etc.), 3(T), 4(F), 5(cords out of traffic areas, gaffer tape, covers) 6 (off), 7(d), 8(d), 9 (service technician) 10(sun, water, edge of a table/desk)

## Photography- Quiz Assignment #6

1. PPE refers to a) personal protective eyewear b) property, plant and equipment, c) personal protective equipment, d) park palace entertainment
2. List four examples of safety equipment: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_
3. Scouting always examines safety first. True or False. (Circle).
4. Maintaining safety and care of equipment is the teacher's responsibility. True or False (Circle)
5. A way to avoid tripping hazards on-location is to: (complete the sentence)  
\_\_\_\_\_
6. What must you remember to do when taking a memory card out of a camera?  
\_\_\_\_\_.
12. One should always stabilize tripods/lighting stands by a) keep them out of high traffic areas b) using gaffer tape c) sandbagging stands/tripods, d) all of the above.
13. You can protect the camera LCD screen/monitor by: a) cleaning with lens cleaner/cloth b) keeping screen closed on camera while in transit c) not puncturing with sharp objects or leaving in the sun d) all of the above.
7. Servicing a video camera should be done by: \_\_\_\_\_.
8. Three general areas to avoid placing a camera: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_
9. Three ways to protect a camera lens are to: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_
10. Answers 1(c), 2(closed toe shoes, long pants, gloves, ear plugs, etc.), 3(T), 4(F), 5(cords out of traffic areas, gaffer tape, covers) 6 (Turn off camera), 7(d), 8(d), 9 (service technician) 10(sun, water, edge of a table/desk), 11 (avoid liquid spills, avoid direct sun, avoid table edge, keep in a camera bag, use a lens filter).

## Audio-Word Search Assignment #7

R	F	R	E	Q	U	E	N	C	Y
D	E	E	E	A	U	D	I	O	T
Y	M	K	N	X	Y	T	X	N	S
N	Z	R	A	K	I	S	E	D	A
A	I	M	V	E	U	M	I	E	F
M	I	C	R	O	P	H	O	N	E
I	M	H	U	I	L	S	K	S	T
C	M	W	U	R	I	U	F	E	Y
H	Q	Q	W	O	V	M	M	R	Y
F	E	E	D	B	A	C	K	E	P

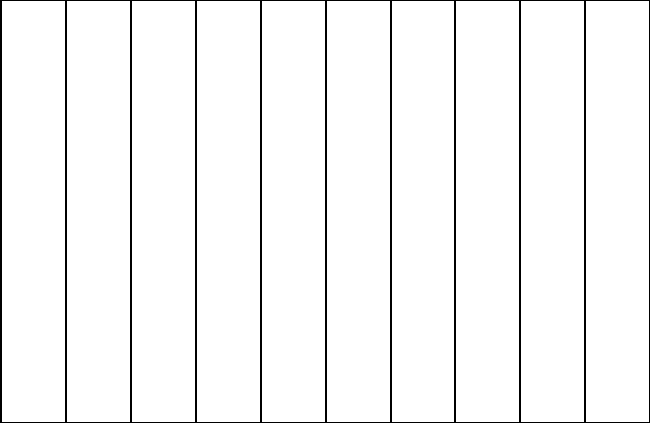
AUDIO  
CONDENSER  
DYNAMIC  
EQUIPMENT  
FEEDBACK  
FREQUENCY  
MICROPHONE  
MIXER  
SAFETY  
SPEAKER  
VOLUME

## Safety Assignment # 8 – On Location Diagrams

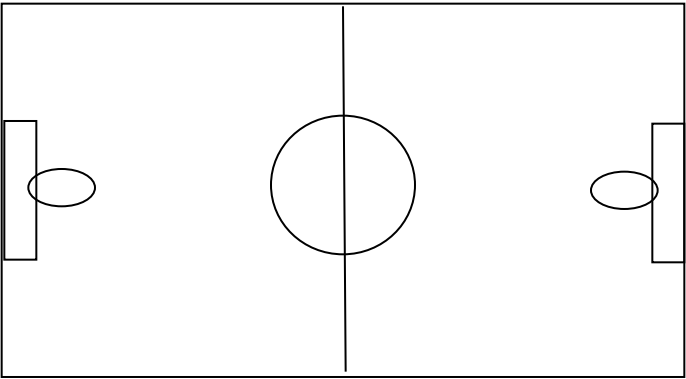
(Camera, lighting, and audio equipment set-ups)

Students are to make a diagram of a production set-up that would take place on-location at the school. The diagram must include control room/switcher location, camera placements, audio requirements, microphone placements, lighting placements, cable runs and special considerations. Please include all cabling and outlets.

### Football Setup

	<p>Number of Cameras: _____</p> <p>Number of Mics: _____</p> <p>Cable: _____</p> <p>Audio - _____</p> <p>Camera - _____</p> <p>Electrical - _____</p>
--	---

### Basketball Setup

	<p>Number of Cameras: _____</p> <p>Number of Mics: _____</p> <p>Cable: _____</p> <p>Audio - _____</p> <p>Camera - _____</p> <p>Electrical - _____</p>
--	---



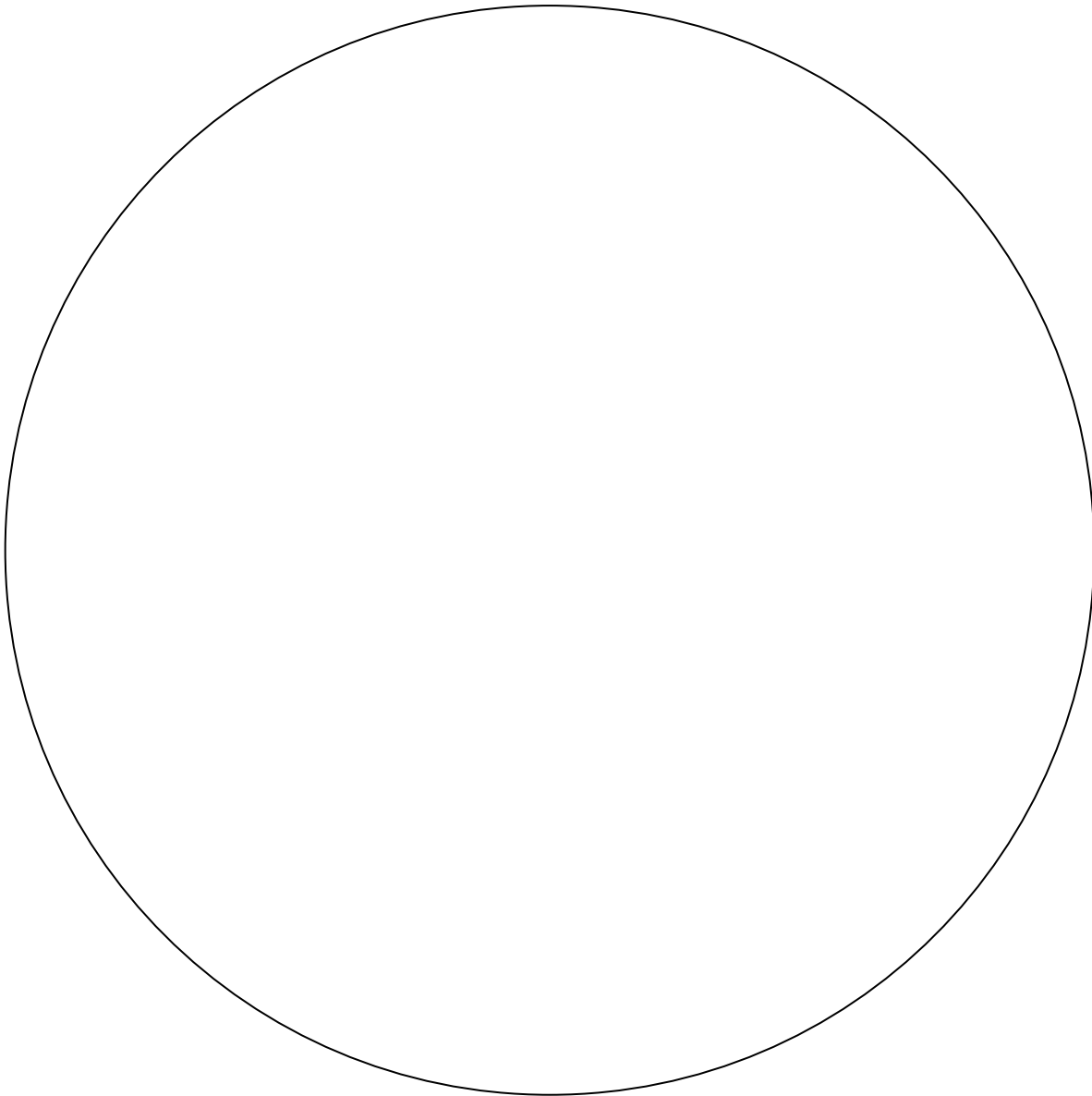
## Safety Assignment # 9 – On Location Lighting

### Idea Wheel

Student: \_\_\_\_\_

Date: \_\_\_\_\_

Write the word "Lighting Kit" in the centre of the idea wheel. In the outer circle write any safety concerns associated with the use of "Portable lighting and a lighting kit". You must come up with at least 10 concerns.



## Safety Assignment # 10 – On Location Camera Word Search

Student: \_\_\_\_\_

Date: \_\_\_\_\_

S	I	M	H	W	Z	Q	S	L	I	P	S	U	M	A	T	O	T
K	C	O	L	N	A	P	K	P	W	I	F	L	V	O	E	P	X
N	C	H	R	Z	K	C	O	L	D	O	P	L	I	R	T	B	S
Z	U	Q	H	V	G	H	P	W	C	S	C	A	B	L	E	S	P
Z	F	V	Z	M	C	A	M	E	R	A	P	L	A	T	E	M	I
R	S	U	N	S	C	R	E	E	N	P	X	M	Q	B	K	I	R
L	H	U	N	I	P	M	Y	D	X	B	C	M	W	Z	C	D	T
V	V	P	L	E	V	E	L	C	A	M	E	R	A	T	O	A	S
N	V	X	E	C	G	N	I	L	I	A	R	J	P	L	L	D	U
W	J	L	K	E	U	R	Z	Q	X	B	G	L	L	H	T	P	L
C	A	M	E	R	A	H	E	I	G	H	T	Y	H	S	L	Z	E
S	E	A	P	D	D	G	U	U	B	D	T	Q	Z	K	I	U	N
Q	Q	S	G	N	I	D	L	O	F	F	A	C	S	F	T	H	S
J	T	S	E	V	O	L	G	S	F	U	P	G	R	K	H	A	C
K	X	B	A	Z	F	Z	K	Y	N	H	V	I	K	G	G	T	A
U	S	W	R	Z	R	S	U	N	S	H	A	D	E	S	W	S	P
V	E	L	E	C	T	R	I	C	A	L	C	A	B	L	E	S	W
K	T	N	R	E	W	O	P	W	X	E	R	T	U	X	N	C	N

### Word List:

**Cables, Camera Height, Sunscreen, Tilt Lock, Tri-Pod Lock, Trips, WHMIS, Camera Plate, Dolly, Electrical Cables, Gloves, Hats, Lens Cap, Level Camera, Pan Lock, Power, Railing, Scaffolding, Slips, Sun Shade**

## Safety Assignment # 11 – On-Location Avoiding Accidents Quiz

DIRECTIONS: Match each of the safety hazards from the top line with the descriptions of how to avoid an accident. Write the letter of the safety hazard in the space provided.

### Safety Hazards

- |          |           |            |
|----------|-----------|------------|
| A. Burns | B. Injury | C. Falls   |
| D. Fires | E. Shocks | F. Strains |

### Ways to Avoid Accidents

1. \_\_\_\_\_ Never handle electrical equipment with wet hands or while standing in \_\_\_\_\_ water.
2. \_\_\_\_\_ Walk, do not run.
3. \_\_\_\_\_ Heavy articles should be stored on the bottom shelves.
4. \_\_\_\_\_ Protect your hands by using gloves to roll cables.
5. \_\_\_\_\_ Do not stand in one position for extended periods of time.
6. \_\_\_\_\_ Lift heavy objects using your leg muscles.
7. \_\_\_\_\_ Use correct door to enter and exit the production location.
8. \_\_\_\_\_ Use lighting correctly.
9. \_\_\_\_\_ Be sure equipment is turned off before unplugging it from an outlet.
10. \_\_\_\_\_ Keep flammable materials such as gels and diffusion paper away from hot \_\_\_\_\_ bulbs.
11. \_\_\_\_\_ Keep work areas and traffic lanes clear.
12. \_\_\_\_\_ Check electrical equipment frequently for faulty wiring and fraying cords.
13. \_\_\_\_\_ Let lights cool before dismantling and putting away.
14. \_\_\_\_\_ Use a stepladder, never a chair or table, if you need to reach something \_\_\_\_\_ on a high shelf.
15. \_\_\_\_\_ Keep the floor clean and dry.

16. \_\_\_\_\_ When you must lift a heavy object, squat with knees bent, feet apart, and \_\_\_\_\_ back straight.
17. \_\_\_\_\_ When disconnecting electrical equipment, pull the cord by the plug.
18. \_\_\_\_\_ Look where you are going.
19. \_\_\_\_\_ Keep floor mats flat to prevent stumbling.
20. \_\_\_\_\_ Never leave hot lights unattended.
21. \_\_\_\_\_ Use a cart to carry heavy objects any distance.
22. \_\_\_\_\_ Always wear closed toe shoes.
23. \_\_\_\_\_ Make sure tripod locks are set before leaving camera.
24. \_\_\_\_\_ Disconnect camera cables from camera before winding up.
25. \_\_\_\_\_ Use a flashlight to check on equipment in dark locations.
26. \_\_\_\_\_ Ask for a cable puller when operating a camera hand-held.
27. \_\_\_\_\_ Have handrails installed on raised platforms and scaffolding.
28. \_\_\_\_\_ Use gaffer tape or carpets to cover cables.
29. \_\_\_\_\_ Do not jump down from a stage. Use the stairs.
30. \_\_\_\_\_ Do not hang from a lighting grid. Use a stepladder.
31. \_\_\_\_\_ Use headphones to cancel loud noises in shooting location.
32. \_\_\_\_\_ Limit working time to reduce fatigue.
33. \_\_\_\_\_ Use job rotations to reduce repetitive injuries.
34. \_\_\_\_\_ Take additional rest breaks in hot or cold weather.

## Safety Assignment # 12 – On Location Equipment Checklist

Production: \_\_\_\_\_ Date: \_\_\_\_\_

Crew: \_\_\_\_\_

Equipment	Sign Out	Sign In	Inspection Report (concerns, issues)
<b>Video</b>			
Camcorder			
Tripod			
Batteries			
Recording Media (SD Cards, Tapes)			
Dolly			
Camera Cables			
Headsets			
Power Supply			
Extension Cables			
Gloves			
Circuit Tester			
<b>Photography Equipment</b>			
Digital Camera			
Tripod			
Batteries			
Recording Media (SD Cards, Tapes)			
<b>Audio Equipment</b>			
Audio Board			
Audio Cables / Snake Cable			
Microphones (wired and wireless)			
Batteries and AC power supply			
Assorted cables and adapters			
<b>Lighting Equipment</b>			
Lights			
Clamps and Stands			
Electrical Cables			

Scrims, Gels, Diffusion			
Backdrops			
Backdrop stands / Clamps			
Gloves			
<b>Miscellaneous</b>			
Gaffer Tape			
Carpets			

## Safety Assignment # 13 Vinyl Cutter

### VINYL CUTTER / PRINTER SAFETY QUIZ

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

1. When setting up your machine is it safe for you to plug your machine into an extension cord?
  - A. Yes
  - B. No
  - C. It depends
2. Is it considered safe to pull or adjust the materials while the machine is in the process of printing/cutting?
  - A. Yes
  - B. No
3. When the ink printer needs to be replaced, you should \_\_\_\_\_
  - A. Leave the machine power on
  - B. Turn the power off to the machine
  - C. Leave for the next user to take care of

## Safety Assignment # 14- Heat Press

### HEAT PRESS SAFETY QUIZ

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Why should someone **not** pull the plug by the cord?
  1. Chance of electrical shock
  2. Damage to the machine and electrical systems
  3. All the above
  
2. Is it safe to leave the heat press on and unattended?
  - a. Yes
  - b. No
  
3. How many people can use the heat press at a time?
  - a. 1
  - b. 4
  - c. 6



## Facilities Health and Safety Inspection Checklist

Teacher Inspecting: \_\_\_\_\_

Student Inspecting: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

AREA INSPECTED	CONDITION	ACTIONS NEEDED	DATE RECTIFIED
Outlets			
Electrical equipment and extension cords			
Emergency power Switches/Breakers			
Fire extinguishers			
Lighting fixtures			
Studio fans/heat pumps			
Traffic areas			
Ceiling tiles and fixtures			
Floor tiles/carpet and surfaces			
Work area and cleaning areas			
Chemical storage and labeling			
Eye wash station			
First Aid Kit			
Vinyl/latex/rubber gloves			
Camera/tripods, lighting storage			
Safety glasses/goggles			
Studio (photography, video, audio...)			

## Sample WHMIS and SDS Quiz

### Section 1

Define WMHIS and SDS.

What is the responsibility of the employer in regards to WHMIS according to the Occupational Health and Safety Act of Ontario?

### Section 2: Multiple Choice

1. If a hazardous material has more than 100 milliliters in one container, the label must have additional information which includes:  
a) the company's chemist      b) risk time factor  
c) b and d      d) precautionary measures while exposed to the product
2. Workplace labels must contain a material identifier or product name, reference to a SDS, precautionary steps, and:  
a) an emergency phone number      b) the hospital's phone number  
c) first aid measures      d) the company's phone number
3. In Canada, a supplier's WHMIS label must be written in:  
a) French      b) English  
c) Chinese      d) both official languages
4. A supplier when selling a hazardous material product must include:  
a) a rebate      b) SDS  
c) WHMIS      d) OH&S
5. A Safety Data Sheet should be:  
a) kept on file forever      b) read and then thrown out  
c) photocopied for all workers      d) placed in a binder and kept for 3 years

### Answer Key:

#### Section 1

1. Workplace Hazardous Material Information System, Material Safety Data Sheets
2. To inform employees of hazardous materials.

Section 2: Multiple Choice: 1. c 2. c 3. d 4. b 5. d

## Communications Technology

### EQUIPMENT SAFETY GUIDELINES CULMINATING ACTIVITY

Each piece of equipment we use in the lab has specific safety and operating guidelines and procedures. The purpose of this activity is to research the equipment and produce safety information sheets on all of the equipment. The safety sheets will be laminated and used as reference material for all Communication Technology students. You must include the following information on all safety information sheets:

1. **Name of equipment (i.e., FS200 Camcorder)**
2. **Function of equipment (i.e., editing)**
3. **Safety guidelines**
4. **Correct operating procedures**

**You are developing important mandatory material that will be used by all communications students. The information sheets must be precise and easy to follow.** Material reference information such as equipment manuals provided by the manufacturer is your main source. The internet may provide you additional information as well as the training you received through the communications program. If you have any questions at any time, please ask!

#### **Equipment List:**

T3i DSLR camera  
 HP computer  
 iMac computer  
 Printer  
 Paper cutter  
 Strobe lights  
 Electrical cords  
 Reverse wrap  
 TV studio clearcom sets  
 Microphones  
 Sound board  
 College TV Studio  
 On location equipment prep

#### **Due Date:**

Tuesday March 10<sup>th</sup>  
 Tuesday March 24<sup>th</sup>  
 Tuesday March 31<sup>st</sup>  
 Tuesday April 7<sup>th</sup>  
 Wednesday April 15<sup>th</sup>  
 Tuesday April 21<sup>st</sup>  
 Tuesday April 28<sup>th</sup>  
 Tuesday May 5<sup>th</sup>  
 Tuesday May 12<sup>th</sup>  
 Tuesday May 19<sup>th</sup>  
 Tuesday May 26<sup>th</sup>  
 Tuesday May 31<sup>st</sup>  
 Tuesday June 16<sup>th</sup>

## SECTION 4: SAFETY PASSPORTS

This section contains information about Safety Passports, which provide a means to track individual student safety knowledge and skills. These Safety Passports ensure that students have passed the required safety tests and understand the safety procedures and rules specific to the tools and equipment. It is recommended that all teachers keep records of signed passports at all times.

Safety Passports may be signed by teachers, parents and students before working on any workshop machine or tool. Signing indicates the completion of safety training and testing. There are three variations; teachers may select the most appropriate method to suit their needs. Ensure that the selected passports meet board and school policies.

**Safety Record Card:** for individual student; records their proficiency rating for each machine on one sheet.

**Safety Passport Form 2:** sheets for individual students listing machines; for teacher record book

**Safety Passport Form 3:** individual machine for each individual student; has line for parent signature to be used as a safety reinforcement or authorization. (ask principal for permissions)

Students are encouraged to keep notes

### NOTE:

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## Sample: Record of Safety Training

**Student:**

**Class:**

Over the course of the semester or term(s) you will receive direct instruction in the safe and appropriate use of the all the equipment, tools, materials, and facilities required to complete your classroom activities. Instruction consists of a combination of demonstration, written and verbal instruction. A satisfactory mark on a safety quiz following the instruction demonstrates the acquisition of sufficient knowledge to use and access the relevant equipment and materials. Your ongoing demonstration of safe practice is assessed in the project marking. Your teacher will put the date and sign-off beside each topic in acknowledgement of your attendance at the discussion or demonstration.

**STUDENTS MAY NOT USE ANY EQUIPMENT, TOOL, OR FACILITY UNTIL:**

- his or her training has been signed off by the teacher
- he or she has received a satisfactory mark on the related safety quiz.

Topic	Date	Teacher's Signature
Computer Resources and the Internet		
<ul style="list-style-type: none"> <li>• Acceptable Use Policy</li> <li>• Safety on the Internet</li> <li>• Computer Ergonomics</li> </ul>		
Equipment		
<ul style="list-style-type: none"> <li>• Safe use of chemical treatments</li> <li>• Use of personal protective equipment (PPE) for patient/client</li> <li>• Safe and proper lighting</li> <li>• Safe and proper care of equipment</li> </ul>		
Facility Care		
<ul style="list-style-type: none"> <li>• Proper cleaning and setup procedures</li> <li>• Maintaining safe, working environment</li> <li>• Use of personal protective equipment (PPE) for self</li> <li>• Safe and proper disposal of consumables and hazardous materials</li> </ul>		

# Communications Technology

## On-Location Personal Safety Rules and Expectations

In order to function safely On-Location at an event, the following rules must be adhered to:

1. **Respect** for the teacher and fellow students is an absolute must! The production operates on a “team” basis. We must get along and respect each other in order for the production to function successfully. Therefore, bullying of any nature will be dealt with immediately and consequences will follow.
2. **Horseplay** will not be tolerated at any time at the event. This includes any disruptive behaviour that may be dangerous.
3. **Cell phones and electronic equipment of any kind (mp3’s, iPod, games, etc.) are not permitted at the event.**
4. If you need to **leave the shooting location** for any reason you must ask permission to do so.
5. Coats, bags and purses belong in your locker. We cannot be responsible for any lost or stolen personal items at the event location.
6. You must **get permission** before heading out to the event location.
7. Proper dress is essential when covering events. Students must wear pants while setting up or tearing down staging or set equipment. Storage will be available to the students for any extra clothing. Shoes should be closed-toe and rubber soled.
8. You must ask for permission before dismissal from the event. NO one is permitted to leave the event location before tear down and clean-up.
9. Your work area must be kept clean and neat at all times.
10. You must have had a lesson on the safe operation of a piece of equipment and pass the related safety assignment before using the equipment.
11. A qualified instructor must be present at all event locations before any coverage will take place.
12. All personal protective equipment must be worn at all times at the event.
13. Inform instructor of any unsafe conditions

I, \_\_\_\_\_ have read these guidelines. I understand and will abide by them at all times while at the production.

Student’s Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent’s Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Sample Student Safety Record Card

[illegible]

## Form 2: Multi-equipment/Procedure Sign-off

Student Name: \_\_\_\_\_ Course/Class: \_\_\_\_\_

<b>Equipment/Procedure:</b> _____							
Attended Teacher Safety Instruction and Demonstration (Notes recorded)		Passed Written or Oral Testing		Demonstrated Safe Set-up and Operation to Teacher		Granted Permission by Teacher	
Date of Lesson	Teacher Initial	Date Tested	Teacher Initial	Date of Demo.	Teacher Initial	Date	Teacher Initial

<b>Equipment/Procedure:</b> _____							
Attended Teacher Safety Instruction and Demonstration (Notes recorded)		Passed Written or Oral Testing		Demonstrated Safe Set-up and Operation to Teacher		Granted Permission by Teacher	
Date of Lesson	Teacher Initial	Date Tested	Teacher Initial	Date of Demo.	Teacher Initial	Date	Teacher Initial

<b>Equipment/Procedure:</b> _____							
Attended Teacher Safety Instruction and Demonstration (Notes recorded)		Passed Written or Oral Testing		Demonstrated Safe Set-up and Operation to Teacher		Granted Permission by Teacher	
Date of Lesson	Teacher Initial	Date Tested	Teacher Initial	Date of Demo.	Teacher Initial	Date	Teacher Initial



## ***[EQUIPMENT/PROCEDURE]***

### **General Conditions**

### **Personal Protective Equipment**

### **Possible Risk Factor**

- The student has been trained on this equipment and procedure.
- The student understands the required personal protective equipment to operate this equipment and perform this procedure.
- The student is aware of the possible risk factors

**Student signature**

\_\_\_\_\_

**Teacher's signature**

\_\_\_\_\_

**Date of training**

\_\_\_\_\_

# PORTABLE LIGHTING PASSPORT

## General Conditions

Portable Lighting can get extremely hot during use. There are many hazards related to electrical power and distribution. There is also the potential of trip hazards and the use of sandbags is recommended. Some lamps may shatter causing eye injuries. Students must be trained on the safe and proper use of **lighting equipment** before they may begin their use. The student must demonstrate the ability to use the equipment safely.

## Personal Protective Equipment

- Appropriate Footwear
- Hard Hat as appropriate
- Safety Glasses
- Work Gloves

## Possible Risk Factor

- Burns
  - Cuts or lacerations
  - Electrocution
  - Eye injury from shattering bulbs
  - Falls from ladder
  - Muscle strain
- The student has been trained on this equipment and these procedures.
  - The student understands the required personal protective equipment to operate this equipment or perform these procedures.
  - The student is aware of the possible risk factors

**Student signature** \_\_\_\_\_

**Teacher's signature** \_\_\_\_\_

**Date of training** \_\_\_\_\_

# MOBILE CAMERA PASSPORT

## General Conditions

Improper posture, equipment placement, and repetitive use of equipment may cause injuries and pain. Students must be trained on the safe and proper use of equipment before they may begin using it. The student must demonstrate the ability to use the equipment safely.

## Personal Protection

- Proper equipment placement
- Proper footwear / dress apparel
- Safety harness (when on roof or high scaffold)
- Work gloves

## Possible Risk Factor

- Electrical power hazards
- Eye strain
- Spine and back injuries
- Trip hazards

- The student has been trained on this equipment.
- The student understands the required personal protective equipment to operate this equipment.
- The student is aware of the possible risk factors

Student signature \_\_\_\_\_

Teacher's signature \_\_\_\_\_

Date of training \_\_\_\_\_

# PORTABLE AUDIO EQUIPMENT PASSPORT

## General Conditions

Loud noises, heavy equipment, location set-up and electrical hazards may be present when working with audio equipment. Students must be trained on the safe use of audio equipment before they may begin using it. The student must demonstrate to the teacher proficiency and safe work procedures which must be followed before usage.

## Personal Protective Equipment

- Circuit tester
- Headphones
- Hearing protection
- Work gloves

## Possible Risk Factor

- Cuts and abrasions
  - Electrical shock
  - Hearing damage or loss
  - Tripping, slips and falls
- The student has been trained on this equipment and procedures.
  - The student understands the required personal protective equipment to operate this equipment and perform these procedures.
  - The student is aware of the possible risk factors

**Student signature**

\_\_\_\_\_

**Teacher's signature**

\_\_\_\_\_

**Date of training**

\_\_\_\_\_

# Equipment/Electrical/Battery PASSPORT

## General Conditions

Students must be trained in the proper procedures (WHMIS and SDS) of cleaning chemicals and their uses within the Communications Technology environment to be able to perform any equipment related tasks. The student must demonstrate the ability to follow manufacturers' instructions and employ cleaning agents for a specific sanitation procedure.

## Personal Protective Equipment

- Rubber Gloves
- Non-Slip Soled Enclosed Shoes

## Possible Risk Factors

- Respiratory Problems (inhalation)
- Skin Irritation
- Slippage
- Muscle Strain
- Burns or Scalds
- Cuts or Lacerations

- The student has been trained on this equipment and these procedures.
- The student understands the required personal protective equipment to operate this equipment or perform these procedures.
- The student is aware of the possible risk factors

**Student signature**

\_\_\_\_\_

**Teacher's signature**

\_\_\_\_\_

**Date of training**

\_\_\_\_\_

# ERGONOMICS PASSPORT

## General Conditions

Improper posture, equipment placement, and repetitive use of equipment may cause injuries and pain. Students must be trained on the safe and proper use of equipment before they may begin using it. The student must demonstrate the ability to use the equipment safely.

## Personal Protection

- Proper posture
- Proper equipment placement
- Change in sitting arrangements, etc. to avoid repetitive stress injuries

## Possible Risk Factors

- Spine and back injuries
- Hand injuries
- Eye strain

- The student has been trained on this equipment.
- The student understands the required personal protective equipment to operate this equipment.
- The student is aware of the possible risk factors

**Student signature**

\_\_\_\_\_

**Teacher's signature**

\_\_\_\_\_

**Date of training**

\_\_\_\_\_

# INTERNET USE PASSPORT

\*\*\*\*\*TO BE USED AS AN EXAMPLE ONLY – PLEASE SEE BOARD/SCHOOL POLICY\*\*\*\*\*

## General Conditions

Students must be trained on the safe and proper use of the Internet before they may begin using it. The student must demonstrate to the teacher, knowledge of safe and secure procedures as outlined in the Internet Use Policy Document.

## Personal Protection

- Knowledge of school and school board Internet Use Policy
- Never releasing personal information
- Avoidance of insecure and questionable sites
- Respect for self and others
- Awareness of security issues in Communications Technology

## Possible Risk Factors

- Threats to personal safety and/or security
- Loss of privacy
- Threats to emotional security
- Spread of damaging computer viruses
- Damage to computer operating and networking systems

- The student has been trained on this equipment.
- The student understands the required personal protective equipment to operate this equipment.
- The student is aware of the possible risk factors

**Student signature**

\_\_\_\_\_

**Teacher's signature**

\_\_\_\_\_

**Date of training**

\_\_\_\_\_

## SECTION 5: EMPHASIS COURSE RESOURCES

### Safety Assignment # 1 Emphasis Course - Audio Equipment Checklist

Production: \_\_\_\_\_

Date: \_\_\_\_\_

Crew: \_\_\_\_\_

Audio Equipment	Sign Out	Sign In	Inspection Report (concerns, issues)
<b>Studio</b>			
Audio Board			
Circuit Tester			
Extension Cables			
Gloves			
Head Phones			
Headsets			
Intercom Box			
Intercom Head-sets			
Microphones			
Power Bar			
XLR Audio Cables / Audio Snake			
<b>E.N.G. / E.F.P.</b>			
Audio Cables			
Clamps			
Microphones			
Portable Audio Mixer			
<b>Mobile / On-Location</b>			
Audio Board			



Audio Cables / Snake Cable			
Microphones (wired and wireless)			
Batteries and AC Power Supply			
Assorted Cables and Adapters			
<b>Safety Gear</b>			
Safety Cones			
Caution Tape			
Carpets			
Cable Covers			
Sandbags			
Circuit Tester			
Gloves			
<b>Miscellaneous</b>			
Gaffer Tape			
Velcro			
Rope			

## Safety Assignment # 2 – Emphasis Course - Audio Equipment Wiring

You've been asked to set-up the audio for a number of different productions. Students are to wire up a basic set-up for an E.N.G., E.F.P. and Studio/Stage Production. They will need to be aware of the safety concerns of the specific location and how to eliminate the risk to crew and participants. NO shoot is worth putting yourself or your crew in danger. Draw lines to connect the audio cables to equipment in proper order and then use the appropriate safety gear to cover over the equipment.

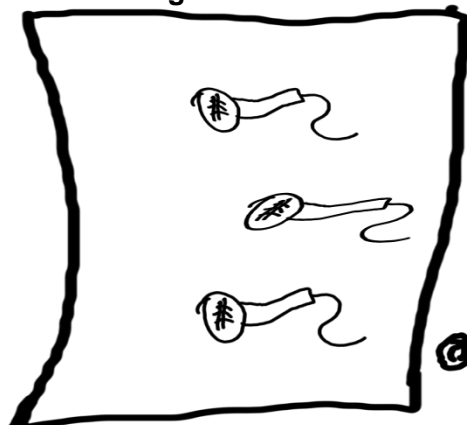
### E.N.G.



### E.F.P.



### Studio / Stage Production



### Audio and Safety Equipment Provided:

XLR Audio Cables  
Gaffer Tape

Speaker Cable  
Carpet

RCA Cable  
Cable Covers

Security Guards

## Safety Assignment # 3 Emphasis Course - Match Game

Safety always is the primary concern when working with audio equipment for broadcasting. As in any situation, be it on-location or in the studio, there are a multitude of different techniques to ensure safety. Using the list below, match the situation with the most common method of solving the hazard or situation.

Hazard / Situation		Equipment / Solution	
1	Cables through a doorway	<u>1</u>	Tape it down
2	Cables through a walkway	<u>2</u>	Cover it up with a carpet
3	Cables across a roadway	<u>3</u>	Protect it using cable cover
4	Using a microphone	<u>4</u>	Don't get it wet or bang it
5	Busy location	<u>5</u>	Have security personnel
6	Uneven pathway	<u>6</u>	Use cones as warning
7	Film shoot	<u>7</u>	Surround area with caution tape
8	Sound booth	<u>8</u>	Block off area with barriers
9	Speaker stands	<u>9</u>	Use sandbags to anchor down
10	Head sets	<u>10</u>	Watch audio levels / listening level
11	Hanging speakers	<u>11</u>	Use safety chain
12	Clamps	<u>12</u>	Don't tighten too much
13	Boom mic	<u>13</u>	Use a harness when getting tired
14	Mic Stands	<u>14</u>	Tipping hazard
15	Cable placement	<u>15</u>	Tripping hazard
15	Wrapping cables	<u>15</u>	Wear gloves when rolling up
17	Speakers	<u>17</u>	Watch heavy lifting

18	Powered amps	<u>18</u>	Outlet must be grounded
19	Water	<u>19</u>	Electrical hazard
20	Lav clip	<u>20</u>	Choking hazard

## Safety Assignment # 4 Emphasis Course - Essentials to Audio Safety

AREA INSPECTED	Noted
<b>Location</b>	
Run cables along walls	
Don't allow cables to get tangled	
Tape down cable using gaffer tape	
Use cable covers	
Use carpets to cover cables	
Wear hard hats when setting up overhead staging / audio	
Use safety chains to tie up equipment that needs hanging	
Use Velcro or rope to tie up cables	
Wear a safety harness when using a bucket truck or scaffolding	
Watch for trip hazards	
Have an assistant when working on a ladder	
Watch noise level of speakers	
Watch noise level of headphones	
Keep food and drink away from equipment	
Do not force equipment. If unsure, ask for help	
Use an assistant to set-up speakers on stands	
<b>Security</b>	
Have security personnel for crowd control	
Use I.D. badges for access to backstage and crew locations	

## Appendix A: Resources

### Ontario Ministry of Labour

Web address: <http://www.labour.gov.on.ca/english/>

For news and information about Ontario's health and safety and employment legislation, the Ministry of Labour website is an excellent place to visit. It provides current information on both employment standards and health and safety legislation, recent fines, alerts, etc. and allows you to ask a question that will be answered by Ministry staff.

This section of the Ministry of Labour website ensures that students are aware of their rights and obligations and their employer's rights and obligations under the *Occupational Health and Safety Act* and the *Employment Standards Act*. It includes: young worker safety education information; information for working students – know your rights and obligations; information for new workers and students working in Ontario; fact sheets for employees; your guide to the Employment Standards Act; and links to related websites.

This site relates to film and tv production

safety <https://www.labour.gov.on.ca/english/hs/pubs/filmguide/>

### Infrastructure Health and Safety Association

Web address: <https://www.ihsa.ca>

Detailed construction safety information for commercial and industrial building construction

### Young Workers – It's your Job

<https://www.labour.gov.on.ca/english/atwork/youngworkers.php>

Is the official website of the Ontario Ministry of Labour for young workers and new workers.

Utilize this website to find out how to be safe at work. Find out how to be treated fairly!

Includes key information on: My Health and Safety at Work, My Employment Standards and I've Got a Problem – What Do I Do Now?

### Workplace Safety and Insurance Board

<http://www.wsib.ca>

Legislated by the Ontario government and responsible for administering the *Workplace Safety and Insurance Act* (WSIA). Governed by a Board of Directors made up of representatives of workers, employers and others.

Under the Resources tab, this website provides information on how WSIB make decisions, by reviewing the Operational policy manual, Employer Classification Manual, and Adjudication support documents. You'll also find useful forms and fact sheets on a variety of topics, including benefit payments, and rights and responsibilities.

- Fact Sheets are also available:
- Fact Sheets for Workers
- Fact Sheets for Prevention
- WSIB Fact Sheets

## Ontario School Boards Insurance Exchange

Web Address: <http://www.osbie.on.ca>

*Summary:* The primary goals of the Exchange are to insure member school boards against losses, and to promote safe school practices. The Ontario school “Risk Management at a Glance” material is intended to provide guidance and direction in the major risk management areas facing school administrators, principals, vice-principals, teachers and all other school staff on a daily basis.

<http://www.osbie.on.ca/risk-management/>

<http://www.osbie.on.ca/risk-management/#resources>

<http://www.osbie.on.ca/risk-management/presentations/presentation-form.aspx>

Although this reference material is not intended to replace school board policies and procedures, it is intended to supplement the risk management considerations, which should go into making the decisions on the most common day-to-day school activities. The design of this publication is to promote the display of this document in a calendar-like format in every classroom to facilitate ready “Risk Management at a Glance”. Every employee who may be called upon to make a decision about the permitting of or the organizing of any activity listed can use this.

For any activities not listed in this material, it is recommended that you contact your board office, or refer to the policies and procedures as stated by your school board.

## WHMIS/GHS

Web Address- [https://www.ccohs.ca/oshanswers/chemicals/whmis\\_ghs/general.html](https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/general.html)

Summary- Contains WHMIS and GHS information

## Electrical Safety Authority of Ontario

Web Address: <https://www.esasafe.com>

*Summary:* Contains information for both employers and employees about workplace safety. Includes information on electrical safety hazards at home, Ontario Electrical Safety Code, workshop links and more.

<http://www.esasafe.com/about-esa/campaigns-and-materials/video-gallery>

## Canadian Centre for Occupational Health and Safety (CCOSH)

Web Address <https://www.ccohs.ca/youngworkers/educators/>

Another website has excellent general information.

### The Learning Partnership

Web Address: <http://www.tlp.on.ca>

These resources have been custom designed to help teachers and workplaces prepare for Take Your Kid to Work day. The new booklets have an excellent section on activities to help prepare the students for a safe learning day.

## School Workers Health and Safety Guide

### Canadian Centre for Occupational Health and Safety

This information-packed coil-bound pocket book covers school safety topics such as emergency preparedness, classroom safety, arts and crafts, industrial technology, maintenance and custodial practices, sanitation and infection control, sports and activities, work environment, ergonomics, personal protective equipment and health and safety legislation. There are good ideas and work practices that can add to your existing safety programs.

*Cost:* The price is reasonable and covers printing and distribution costs.

Check current cost and delivery information in the publications section of the web site.

Web address: <http://www.ccohs.ca>

## Energy Safety Canada

Web address: <https://www.energysafetycanada.com/>

The Energy Safety Canada provides health and safety resources to a wide spectrum of workplaces in the oil and natural gas sector. Individual resources have not been reviewed.

## HEALTH CANADA

<http://www.hc-sc.gc.ca>

Health Canada is the Federal department responsible for helping Canadians maintain and improve their health, while respecting individual choices and circumstances.

Health Canada administers many pieces of legislation and develops and enforces regulations under this legislation that have a direct impact on the health and safety of Canadians. The Department consults with the Canadian public, industry, non-governmental organizations (NGOs) and other interested parties in the development of these laws. Health Canada also prepares guidelines in order to help interpret and clarify legislation and regulations.

Of particular interest would be regulations such as the Hazardous Product Act, Controlled Products Regulations, Environmental and Workplace Health.



## APPENDIX B: OCTE SAFETYNET BLANK TEMPLATE

### Overview

A sample of a blank SafetyNET template provided by the Ontario Council for Technology Education as well as their Materials and Resources sheet has been provided here as an additional resource for computer technology teachers.

Completing it once for a risky project can take teachers through a pre-project planning process, a review of the materials in their shops, the suppliers and processes they use, and encourage documentation of their safety training for themselves, their students, and classrooms. It collects safety information in one place for their own use, and respects their experience, pedagogy, and professionalism. It's a crucial step in standardizing safety training in your technology program at your school, and can assist in collegial communication in your department.

Please note that the online updated version is available at [www.octelab.com](http://www.octelab.com), however any teacher that considers and documents their answers to the questions will have created an important document for their personal professional practice. It's also available in fillable .pdf format, and is also available in French from OCTE

### Establishing A Safety Binder

The goal is a safety binder that teachers keep in their rooms as evidence of due diligence taken towards safety in the classroom.

Assembled safety binders often include teacher/room/board specific:

- *SafetyNET Template*
- Project Specific Safety Resources
- MSDS Sheets
- Student Safety Training Tracking Sheets
- Permission Forms Copies
- Class Lists
- Equipment Maintenance/Manuals
- Training Quiz Samples
- Teacher Training Documentation Copies
- Emergency Procedures Docs
- Board Repair Contacts
- Room Safety / PPE Location Map



## Starting Your SafetyNET

TGJ Subject Area: Tech department heads can provide leadership asking teachers to consider the following questions to choose a focus for completing their own SafetyNET.

- What are the riskiest projects I do in my classroom? (List them here.)
- What ones of these use the riskiest materials?
- Which ones of these use the highest risk-associated equipment?
- Which ones of these include recycled, found, repurposed, or donated materials?
- Which one of these is the hardest to train and track the kids for safety on?
- Reflecting on this listing, which project do you think you may want to do a SafetyNET on?
- What resources of mine would make it easier - instructive for another teacher to try this project?
- What would be the best “safety lens” advice I could give for another teacher from my experience?

Then try it out!

## SafetyNET Lesson Plan

### SafetyNET STEP 1: Tell Us About You

First Name: \_\_\_\_\_  
Last Name: \_\_\_\_\_  
E-mail Address: \_\_\_\_\_  
Ontario School Board: \_\_\_\_\_  
School: \_\_\_\_\_

Community

- ☐ Urban  
☐ Suburban  
☐ Rural

Number of Students:

Student Work is Completed (individually, pairs, groups, mixed methods)

☐

I agree to the Terms and Conditions and have read the Teacher Guidelines.

### SafetyNET STEP 2: Describe Your Lesson

☐

#### Classroom Management Pre-Planning

1. Provide a descriptive **title** for your learning activity.

2. Choose the **length** that best describes your lesson.

- ☐ Full semester  
☐ Multiple weeks  
☐ One week  
☐ One period

3. Choose the **Ontario course code (e.g.)**.

4. Provide **learning goals** of the activity.

Names of Resource Files Included: (Please format as .pdf where possible.)

5. Generally describe your **classroom lab setup** with main equipment and areas.

6. There is a link [here](#) to your subject area's **full** Overall and Specific required **Ministry Expectations**. Click [here](#) for **safety expectations summarized for each tech course code**. These will create a pop-up window for copying and pasting into the field below. Copy and paste some safety expectations your lesson will cover.

7. There may also be **local by-laws** or **staff guidelines** applicable to your school community in general that affect how you teach your subject area for health and safety. Being in an urban or rural environment can offer unique challenges to a technological education program. Your department or school may also have a health and safety manual you can attach as a file later. Include any details or best practices here on what you refer to.

8. Coming from industry and experience as a technological educator, there is **prior teacher knowledge** that you would recommend for your classroom, focused on health and safety. Include information on recommended certifications for your subject area.

9. Many teachers use these as a basis of training for **prior student knowledge**. Check off which ones you use currently. A pop-up window is available through these links.

- ☐ Passport to Safety
- ☐ Introduction to WHMIS

10. Prior to specific project work, describe your **general introductory unit on health and safety** in your classroom.

11. Check off what **Personal Protective Equipment** may be applicable in your classroom in general for health and safety.

- ☐ safety glasses (shatterproof - may need side guards)
- ☐ coveralls / lab coat / apron (protective clothing)
- ☐ gloves (latex and standard)
- ☐ gloves (chemical resistant)
- ☐ welding gloves and face shield
- ☐ dust mask (breathing protection)
- ☐ respirator (breathing protection)
- ☐ appropriate footwear (may imply steel-toed work boots or closed toe and heel shoes)
- ☐ hair net
- ☐ hair tied back
- ☐ hearing protection - ear plugs

- ☐ removing jewellery and fashion accessories
- ☐ hard hat
- ☐ safety harness
- ☐ reflective vest
- ☐ no electronic devices

12. Describe your student safety training assessment strategies. Click [here](#) for a pop-up to review the **Growing Success** document that defines assessment *for learning and as learning*.

13. Some technological classroom areas are more complex and need layout planning, maintenance, and special resources available, especially when sharing rooms. Detail **general housekeeping, organization standards** and student clean-up procedures from your experience.

14. Detail **safe storage facilities** in your classroom for course specific materials.

15. Explain any **special learning considerations** and best practices for your classroom focused on safety. Are there left-handed students in your class? You may naturally include accommodations and modifications. Showcase special approaches or methods you use for exceptional students, multiple-intelligences, differentiated instruction, ESL, gifted, or physically-challenged students.

16. Include information on your safety procedures for **disposal of waste materials**. This could include food scraps, hairstyling chemical, dust collection, combustible wipes, or waste oil.

17. **Company's coming!** Educational Assistants, volunteers, student teachers, and classroom guests with administrators are in your classroom. Provide your experience on elements of safety training that need to be communicated to these participants for your subject area such as wearing safety glasses, maintaining distance from machines, or how to communicate an emergency or issue to the teacher.

18. **Emergency procedures** to pre-plan in general for your technological education classroom depends on your subject area. There may be steps for students, steps for administration, for assisting teachers, or directions for emergency assistance arriving at school. Detail how you cover these in your classroom. Include fire exits, extinguishers, first aid station, eye wash station, and electrical shut-off switches (panic buttons). Possibly detail AED location (if available) and first aid trained staff member locations for your records.

19. Does your Board have a **technological project approval process**?

- ☐ Yes
- ☐ No
- ☐ Unknown

20. Select (all that apply) that complete **equipment inspections** in your board.

- ☐ Teacher
- ☐ Department Head
- ☐ Board Instructional / Subject Area Leader
- ☐ Board Facilities Teams
- ☐ Independent Contractors
- ☐ Ministry of Labour

21. Select **Federal and Provincial Safety Legislation and Policies, Government Departments, and Associations** which may be applicable to your subject area. Click on any of them to open up a pop-up window to reference their website. Consider adding any resources you find to your lesson.

- ☐ Health Canada
- ☐ Ministry of Labour
- ☐ Ontario Workplace Safety and Insurance Act
- ☐ Food Safety and Quality Act
- ☐ Ontario Health Protection and Promotion Act
- ☐ Ontario Highway Traffic Act
- ☐ Ontario Fire Code
- ☐ Ontario Building Code
- ☐ Workplace Hazardous Materials Information System (WHMIS)
- ☐ Workplace Safety and Insurance Board (WSIB)
- ☐ Occupational Health and Safety Act (OSHA)
- ☐ Apprenticeship and Certification Act (ACA)
- ☐ Canadian Standards Association (CSA)
- ☐ Canadian Society of Safety Engineering (CSSE)
- ☐ Ontario Service Safety Alliance (Hospitality and Tourism) (OSSA)
- ☐ Canadian Centre for Occupational Health and Safety (CCOSH)
- ☐ Construction Health and Safety Association of Ontario (CSAO)
- ☐ Ontario School Boards Insurance Exchange (OSBIE)
- ☐ Industrial Accident Prevention Association (IAPA)
- ☐ Transportation Health and Safety Association of Ontario (THSAO)
- ☐ Health Care Health & Safety Association of Ontario (HCHSA)

That's the end of general classroom management info. You can copy and paste the content

from this section to any project you submit to the SafetyNET.

### That's So Cool! When Do We Start?

22. Check off **planning** tasks you complete for this lesson.

- ☐ examine materials list (new, used, recycled materials)
- ☐ review tool use plan (power and hand tools)
- ☐ consider special preparation of recycled materials for this project.
- ☐ review hazardous materials use - WHMIS, MSDS (attach files later)
- ☐ safety check on specific equipment
- ☐ review chemical and fire safety procedures
- ☐ prepare tools
- ☐ count or measure materials, evaluate efficiencies
- ☐ check 'past due' dates on supplies
- ☐ check student-accessible material supply areas are safe
- ☐ re-do a safety demonstration
- ☐ confirm all students completed training diagnostic assessment
- ☐ confirm web resources and handouts are current
- ☐ reconsider assessment and evaluation strategies
- ☐ plan direct supervision time for difficult or high-risk production steps
- ☐ plan direct supervision for flammable / toxic / corrosive materials handling
- ☐ plan safe storage of in-progress student projects
- ☐ plan cut off times for lab cleanup to begin
- ☐ plan waste disposal, recycling
- ☐ plan debrief on safety risk experiences with students
- ☐ detail notes for teacher sharing classroom/lab

25. Detail **instructional strategies** and **assessment strategies** for focusing on safety during this learning activity. Consider any IEP considerations applicable in your classroom.

26. Define the **materials and equipment** used for this learning activity. You can use the blank form that's provided [here](#) and save it to make it your own. The layout helps you collect details showing the materials and equipment. It also provides space for equipment maintenance schedules, disposal of waste materials, training tracking, shielding or guarding details.

27. Include any **best practices** or tips, tricks, and advice in your experience of completing this learning activity. Focus your answer on how you document safety training, and share information about your shop with other tech teachers. That's an OCTELab **SafetyNET!**

28. Provide a **short description** of your project that can go with a reference image for the database. (Max 256 characters.)

### SafetyNET STEP 3: Add Files and Videos

Please attach a **project image** for us to display with your short description in the database. Please upload any **supporting documents** including safety components, lesson materials, assessment tools, digital resources, images, or videos. To bring your lesson to life, include **online videos URL link** files on the lesson plan page. Add as many as you like.

Do you have a **safety features map** of your classroom you can share? Attach it to your lesson! Find the **Material Safety Data Sheet (SDS)** for any of your materials clicking and searching [here](#). Save it and add it to your digital resources to attach with your lesson.

### SafetyNET STEP 4: Tag Your Lesson

Add your own descriptive tag(s) to help users search for content like yours. Print and attach your lesson to document your SafetyNET for your classroom. [Submit](#) your SafetyNET lesson. Plan to update lesson content or add digital resources later with your user login. Think about adding another lesson! Remember, most of your general classroom info is already in. You can 'Save As' and 'Modify' to submit a new lesson with new resources!



## SafetyNET – Materials, Physical Resources Planning Sheet

Teachers can copy and add rows to this blank form to address specific project needs and include it in their safety binder.

PROJECT / LEARNING ACTIVITY TITLE:

COURSE CODE AND TITLE:

VERSION PREPARED DATE:

SUBMITTED BY:

CONTACT:

### MATERIALS LIST

MATERIAL	QUANTITY	DESCRIPTION	SOURCE	WHMIS MSDS ATTACHED	SAFE STORAGE	WASTE DISPOSAL
			<input type="checkbox"/> new, purchased <input type="checkbox"/> new, donated from community, industry <input type="checkbox"/> recycled from inside school <input type="checkbox"/> recycled from outside school  PREPARATION REQUIRED FOR USE:  DETAILS:	<input type="checkbox"/> Y <input type="checkbox"/> N		

## PHYSICAL RESOURCES USED

EQUIPMENT, TOOL, MACHINE	SUBJECT – SPECIFIC NEEDS	INSPECTED FOR SAFETY FEATURES	STUDENT TRAINING PLAN IDENTIFIED	MAINTENANCE SCHEDULE
NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.  DETAIL EQUIPMENT:   MANUAL APPLICABLE / AVAILABLE (LOCATION):	MACHINE GUARDING AND SHIELDING APPLICABLE  <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A  EMERGENCY STOP / PANIC BUTTON APPLICABLE  <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A  LOCK-OUT TAG APPLICABLE  <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A  OTHER (SUBJECT-SPECIFIC)  <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> Teacher  DATE: _____  <input type="checkbox"/> Board  DATE: _____	DETAIL STEPS:  Student attended teacher safety instructions, lessons, demonstration (notes recorded)  Student passed oral or written assessment (test)  Student demonstrated safe setup and operation of equipment to teacher  Student prepared and delivered power point presentations on all class tools and machines  Student granted permission to use equipment  SIGNAGE: safety sign posted  RESOURCES: safety lesson tool safety video tool power point presentation manual  FREQUENCY OF RETRAINING ADVISED: Students should be re-trained every semester  Safety passports expire at the end of every semester	DAILY:  WEEKLY:  MONTHLY:  ANNUALLY:  CONTACT FOR REPAIR:

## References

21<sup>st</sup> Century Competencies: Foundation Document for Discussion. Phase 1: Towards Defining 21<sup>st</sup> Century Competencies for Ontario, Winter 2016 Edition, 2016

[http://www.edugains.ca/resources21CL/About21stCentury/21CL\\_21stCenturyCompetencies.pdf](http://www.edugains.ca/resources21CL/About21stCentury/21CL_21stCenturyCompetencies.pdf)

Skilled Trades Ontario <https://www.skilledtradesontario.ca>

Canadian Centre for Occupational Health and Safety  
<https://www.ccohs.ca/products/>

Course Codes for Emphasis courses in the Revised Curriculum: Technological Education, Grades 11 and 12, 2009  
<http://www.edu.gov.on.ca/eng/curriculum/secondary/techedemphasiscourses.pdf>

Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools, First Edition, Covering Grades 1 to 12, 2010  
[www.edu.gov.on.ca/eng/policyfunding/growSuccess.pdf](http://www.edu.gov.on.ca/eng/policyfunding/growSuccess.pdf)

### **John Deere**

Agricultural Equipment Safety, Maintenance & Operation - VIDEOS  
<https://www.deere.com/en/parts-and-service/manuals-and-training/videos/>

Learning for All – A Guide to Effective Assessment and Instruction for All Students, Kindergarten to Grade 12, <https://www.dcp.edu.gov.on.ca/en/>

**Ministry of Labour, Immigration, Training and Skills Development**  
<https://www.labour.gov.on.ca/>

Some web content related to employment standards and workplace health and safety may be temporarily unavailable as we move it to this website. This website is currently in the process of being updated as of July 27, 2022.

Ontario Building Code  
<https://www.ontario.ca/page/ontarios-building-code>

**Ontario School Boards Insurance Exchange**  
<http://www.osbie.on.ca>

Parts Tree: Small Engine Parts Look Up Supplier

<https://www.partstree.com>

Resources, Skilled Trades Ontario <https://www.skilledtradesontario.ca/about-trades/trades-information/>

Red SEAL – Sceau Rouge, 2018 [http://www.red-seal.ca/trades/tr.1d.2s\\_l.3st-eng.html](http://www.red-seal.ca/trades/tr.1d.2s_l.3st-eng.html)

Start an Apprenticeship in Ontario <https://www.ontario.ca/page/start-apprenticeship>

Skilled Trades Identified in Ontario, Skilled Trades Ontario  
<https://www.skilledtradesontario.ca/about-trades/trades-information/>

The Differentiated Instruction Scrapbook  
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